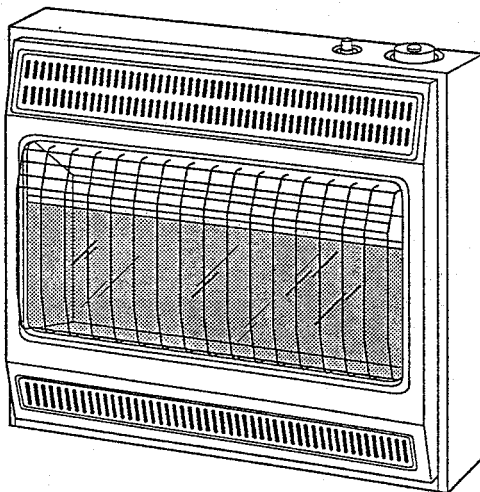




UNVENTED PROPANE GAS HEATER

OWNER'S OPERATION AND INSTALLATION MANUAL



Models: CGP18, CGP18T, and CGP28T

FOR YOUR SAFETY

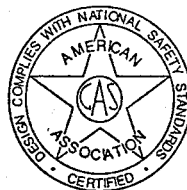
Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

FOR YOUR SAFETY

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.

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual for correct installation and operational procedures. For assistance or additional information consult a qualified installer, service agency or the gas supplier.



Save this manual for future reference.

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SAFETY INFORMATION

WARNINGS

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 fire, explosion, electrical shock, electrocution, and carbon monoxide poisoning.

DANGER

Carbon monoxide poisoning may lead to death!

Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness, and/or nausea. If you have these signs, the heater may not be working properly. **Get fresh air at once!** Have heater serviced. Some people such as pregnant women, persons with heart or lung disease, persons with anemia, those under the influence of alcohol, and those at high altitudes are more affected by carbon monoxide than others. Make certain you read and understand all Warnings. Keep this manual for reference. It is your guide to safe and proper operation of this heater.

1. Use only propane gas.
2. Do not place propane supply tank inside any structure. The propane supply tank must be located outdoors.
3. If you smell gas
 - Shut off gas supply.
 - 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.
4. Never install the heater
 - in sleeping quarters, a mobile home, or 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
 - as a fireplace insert
 - in high traffic areas
 - in windy or drafty areas
5. Open window to admit fresh, outside air when using heater. Open window one (1) or two (2) inches. When used without fresh, outside air, heater may give off carbon monoxide gas.
6. Never run heater in small, closed room. Open door into next room to help ventilate.
7. If heater shuts off, do not relight until you provide fresh, outside air. If heater keeps shutting off, have it serviced.
8. Do not run heater
 - where flammable liquids or vapors are used or stored
 - under dusty conditions
9. Never place any objects on the heater.
10. Surface of heater becomes very hot when running heater. Keep children and adults away from hot surface. Heater will remain hot for a time after shut-down. Allow surface to cool before touching.
11. Make sure grill guard is in place before running heater.
12. Do not alter heater or its controls. Any change may create a safety hazard.
13. Make sure heater is turned off, unplugged, and cool before servicing.

PRODUCT IDENTIFICATION

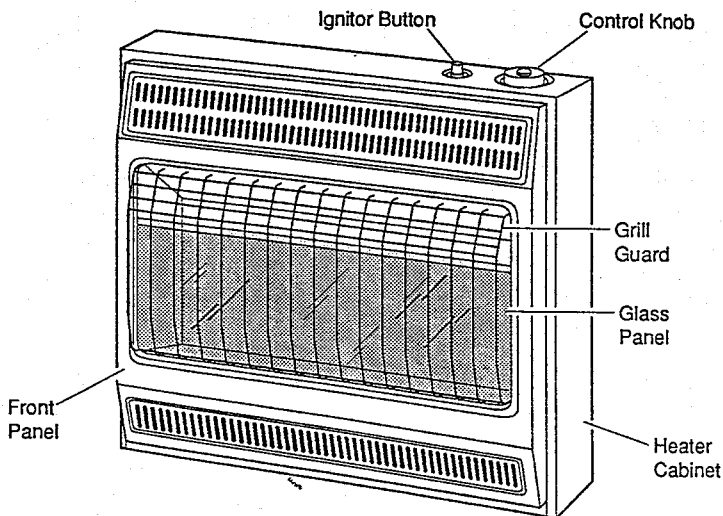


Figure 1 - Unvented Propane Gas Heater (Model CGP28T Shown)

LOCAL CODES

Install and use heater with care. Follow all local codes. In the absence of local codes, refer to The National Fuel Gas Code ANSI Z223.1-1984 and ADDENDA Z223.1a-1987 also known as NFPA 54*.

*Available from:

American National Standards Institute, Inc.
1430 Broadway
New York, NY 10018

National Fire Protection Association, Inc.
Batterymarch Park
Quincy, MA 02269

UNPACKING

1. Remove heater from carton.
2. Remove all protective packaging that has been applied to heater for shipment.
3. Check heater for any shipping damage. If damage is found, promptly inform dealer where heater was purchased.

PRODUCT FEATURES

Safety Device

This heater has a pilot with an Oxygen Depletion Sensor Shutoff System (ODS). The ODS/pilot is a required feature for unvented room heaters. The ODS/pilot shuts off the heater if there is not enough fresh air.

Piezo Ignition System

This heater has a piezo ignitor. This system requires no matches, batteries, or other sources to light heater.

Thermostatic Heat Control

(Models CGP18T and CGP28T Only)

This heater has a thermostat sensing bulb and a control valve. This results in the greatest heater comfort. This can also result in lower gas bills.

INSTALLING TO WALL

NOTICE

Be sure heater is installed by a qualified service person. All local codes must be followed.

CHECK GAS TYPE

Use only propane gas. If your gas supply is not propane, do not install. Call dealer where heater was purchased for proper type heater.

INSTALLATION ITEMS

Before installing the heater, make sure all items below are at hand.

- external regulator (supplied by installer-see page 10)
- piping (check local codes)
- sealant (resistant to propane gas)
- manual shutoff valve *
- union
- test gauge connection * (see Figure 12, page 11)
- drip leg
- tee joint
- pipe wrench

* An AGA approved manual shutoff valve with 1/8" NPT tap is an acceptable alternative to test gauge connection. The optional AGA approved manual shutoff valve can be purchased from your dealer. See ACCESSORIES, page 24.

LOCATING THE HEATER

This heater is designed to be mounted on a wall.

WARNING

Maintain the minimum clearances shown in Figure 2 (page 6). If you can, greater clearances should be provided from floor, ceiling, and joining wall.

You can locate the heater on the floor, away from a wall. An optional floor mounting stand is needed. The floor mounting stand can be purchased from your dealer. See ACCESSORIES, page 24.

WARNING

Never install the heater

- in sleeping quarters, a mobile home, or 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
- as a fireplace insert
- in high traffic areas
- in windy or drafty areas

CAUTION

If you install the heater in a home garage

- heater pilot and burner must be at least 18 inches above floor
- locate heater where it will not be hit by moving vehicle

For convenience and efficiency, install the heater

- where there is easy access for operation, inspection, and service
- in the coldest part of the room

An optional fan kit can be purchased from your dealer. See ACCESSORIES, page 24. If you plan to use the fan, locate heater near an electrical outlet.

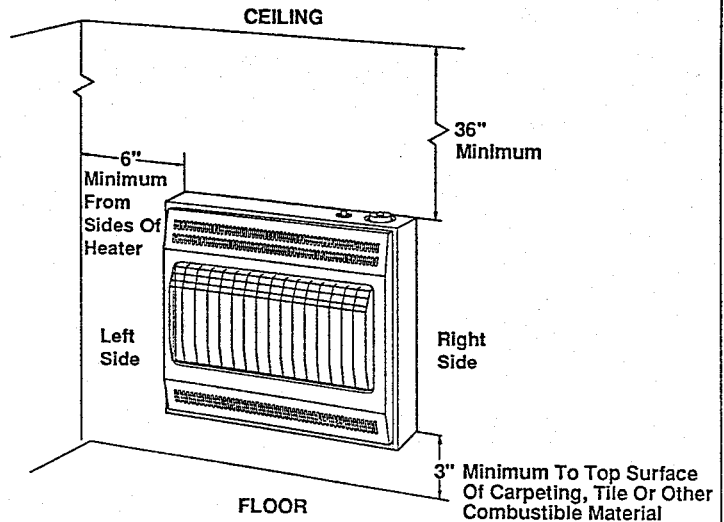


Figure 2 - Mounting Clearances As Viewed From Front of Heater

THERMOSTAT SENSING BULB

(Models CGP18T and CGP28T Only)

The thermostat sensing bulb has been placed inside the heater for protection during shipping.

Locating Thermostat Sensing Bulb

1. Remove the heater's front panel (see Figure 9, page 9).
2. Thermostat sensing bulb is located just under the burner assembly.

IMPORTANT: The thermostat sensing bulb must be attached to the back of heater for proper operation.

To Attach Thermostat Sensing Bulb

1. Remove thermostat sensing bulb from holders inside heater. Route through slot opening in bottom of heater.
2. Place clamps on thermostat sensing bulb as shown in Figure 3. Clamps are provided in hardware package. Thermostat sensing bulb must be located on outside edge of heater.
3. Attach thermostat sensing bulb to back of heater with sheet metal screws. Make sure spacers are placed between clamps and back of heater. Screws and spacers are provided in hardware package.

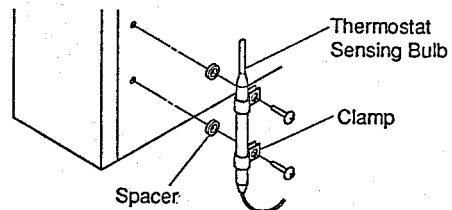


Figure 3 - Attaching Thermostat Sensing Bulb

INSTALLING HEATER TO WALL

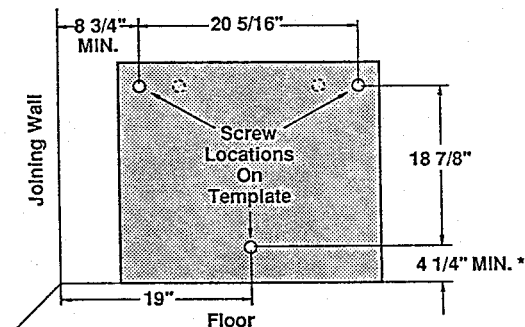
Marking Screw Locations

1. Find paper template provided with this manual.
2. Tape template to wall where heater will be located.

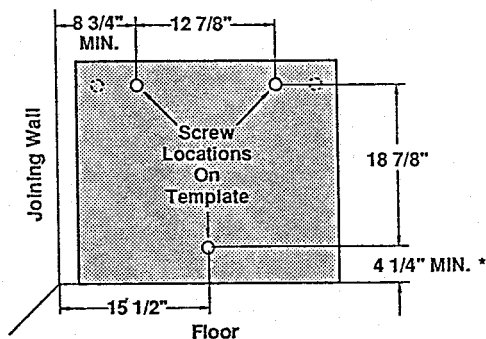
WARNING

Maintain the minimum clearances shown in Figure 4. If you can, greater clearances should be provided from floor and joining wall.

3. Mark screw locations on wall, as shown in Figure 4.



Model CGP28T



Models CGP18 and CGP18T

Figure 4 - Wall Template

* Minimum clearance to top surface of carpeting, tile, or other combustible material.

Installing Anchors and Top Two Mounting Screws

Note: Anchors, mounting screws, and spacers (spacers for models CGP18T and CGP28T only) are located in the hardware package. The hardware package is provided with the heater.

1. Use 5/16" drill bit to drill holes at marked locations. For solid walls (concrete, masonry, etc.) drill at least 1" deep.
2. Fold anchor, as shown in Figure 5.

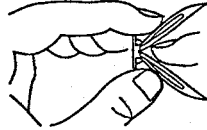


Figure 5 - Folding Anchor

3. Insert anchor (wings first) into hole. Tap anchor flush to wall.
4. For thin walls (1/8" to 1/4" thick), insert red key into anchor. Push red key to "pop" open anchor wings. **IMPORTANT:** Do not hammer key! For thick walls (over 1/4" thick), do not try to pop open wings.

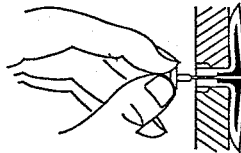


Figure 6 - Popping Open Anchor Wings For Thin Walls

5. Models CGP18T and CGP28T - Insert mounting screws into top two (2) anchors. **IMPORTANT:** Place spacer between anchor and screw. Tighten mounting screws until a 1/16" space (thickness of penny) is between screwhead and spacer.

Model CGP18 - Insert mounting screws into top two (2) anchors. Tighten mounting screws until a 1/16" space (thickness of penny) is between screwhead and anchor.

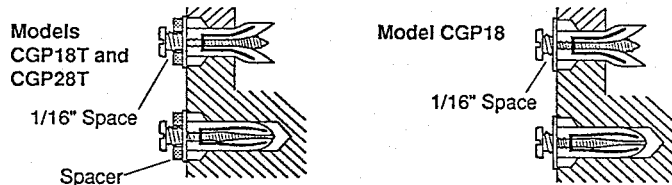


Figure 7 - Securing Mounting Screw Into Anchor

Placing Heater on Top Two Mounting Screws

1. Locate two (2) key hole slots on back panel of heater.
2. Place large opening of slots over screwheads in wall.
3. Slide heater down on screws. Screws should be located in small portion of slots.

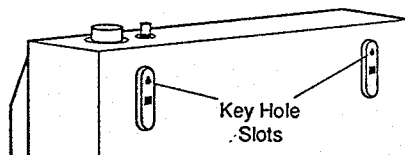


Figure 8 - Key Hole Slot Locations

Removing Heater's Front Panel

1. Remove two (2) screws near bottom corners of front panel.
2. Lift straight up on grill guard until it stops. Grill guard will slide up about 1/4".
3. Pull bottom of front panel forward, then downward.

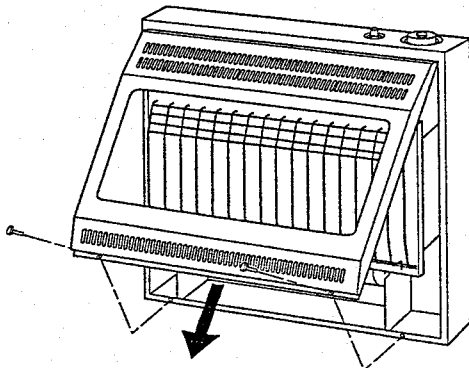


Figure 9 - Removing Front Panel

Installing Bottom Mounting Screw

IMPORTANT: For models CGP18T and CGP28T, place spacer between bottom screw hole in back panel and anchor.

1. Insert mounting screw through bottom screw hole in back panel.
2. Tighten screw until heater is firmly secured to wall. Do not over tighten screw.

Note: Do not replace the front panel at this time. Replace front panel after making gas connections and checking for leaks (see **CONNECTING TO GAS SUPPLY**, page 10, and **CHECKING GAS CONNECTIONS**, page 11).

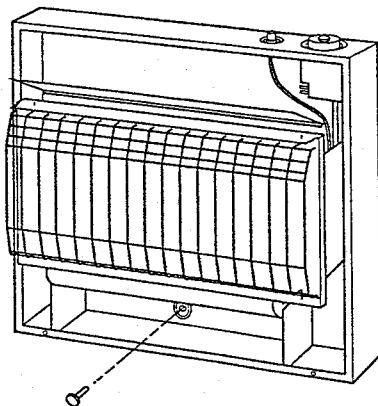


Figure 10 - Installing Bottom Mounting Screw

CONNECTING TO GAS SUPPLY

NOTICE

Be sure heater is connected to gas supply by a qualified service person. All local codes must be followed.

⚠ CAUTION

Never connect heater directly to the propane supply. This heater requires an external regulator (not supplied). The external regulator must be installed between the heater and propane supply.

The installer must supply an external regulator. The external regulator will reduce incoming gas pressure. Incoming gas pressure must be between 11 and 14 inches of water. Make sure the external regulator is installed with the vent pointing down as shown in Figure 11. Pointing the vent down protects it from freezing rain or sleet.

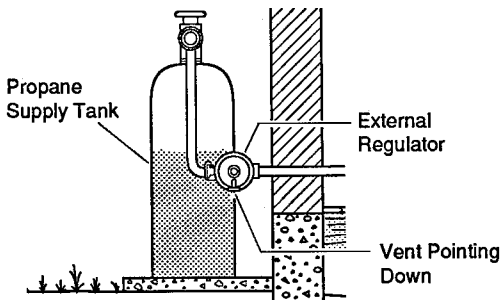


Figure 11 - External Regulator With Vent Pointing Down

⚠ CAUTION

Use only new, black iron or steel pipe. Copper tubing may be acceptable in certain areas. Check your local codes. Use pipe of large enough diameter to allow proper gas volume to heater. If pipe is too small, undue loss of pressure will occur.

Typical Pipe Diameters

CGP18 or CGP18T	3/8" or greater
CGP28T	1/2" or greater

Installation must include, a manual shutoff valve, a union, and a plugged 1/8" NPT tap. Locate NPT tap within reach for test gauge hook up. NPT tap must be upstream from heater (see Figure 12).

Apply pipe joint sealant lightly to male threads. This will prevent excess sealant from going into pipe. Excess sealant in the pipe could result in clogged heater valves.

⚠ CAUTION

Use pipe joint sealant that is resistant to liquid petroleum (LP) gas.

Install a drip leg (trap) in the supply line as shown in Figure 12. Locate the drip leg where it is within reach for cleaning. Locate the drip leg where trapped matter is not likely to freeze. A drip leg traps moisture and contaminants. This keeps them from going into the heater controls. If the drip leg is not installed or installed wrong, the heater may not run properly.

IMPORTANT: The pressure regulator must be held with a wrench when connecting it to gas piping and/or fittings.

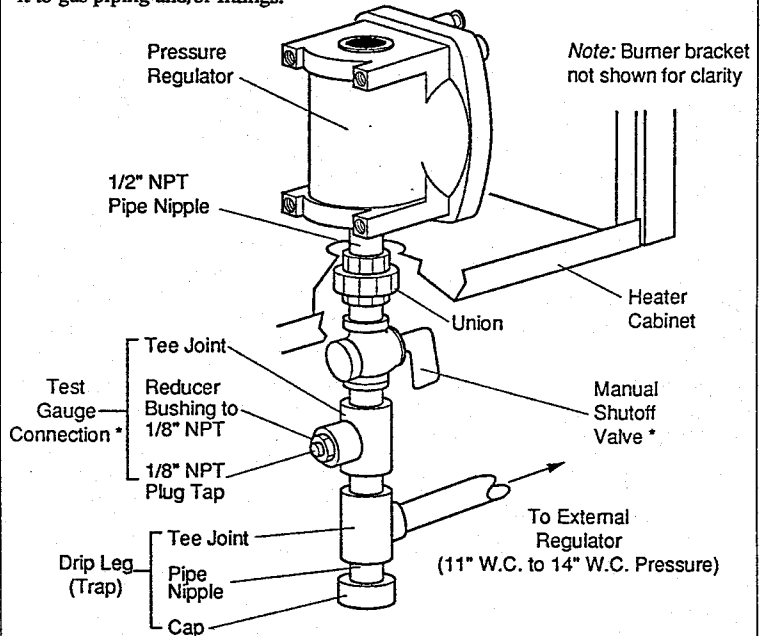


Figure 12 - Gas Connection

* An AGA approved manual shutoff valve with 1/8" NPT tap is an acceptable alternative to test gauge connection. The optional AGA approved manual shutoff valve can be purchased from your dealer. See ACCESSORIES, page 24.

CHECKING GAS CONNECTIONS

⚠ WARNING

All gas piping and connections must be tested for leaks after installation or servicing. All leaks must be corrected at once.

⚠ WARNING

Never use an open flame to check for a leak. Apply a mixture of liquid soap and water to all joints. Bubbles forming show a leak that must be corrected.

⚠ CAUTION

Make sure external regulator has been installed between propane supply and heater. See guidelines under CONNECTING TO GAS SUPPLY, page 10.

PRESSURE TESTING GAS SUPPLY PIPING SYSTEM

Test Pressures In Excess Of 1/2 PSIG

1. Disconnect heater and its individual manual shutoff valve from gas supply piping system.
2. Cap off open end of gas pipe where manual shutoff valve was connected.
3. Pressurize supply piping system by either using compressed air or

opening propane supply tank valve.

4. Check all joints of gas supply piping system. Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak that must be corrected.
5. Correct any leak.

Test Pressures Equal To or Less Than 1/2 PSIG

1. Close manual shutoff valve (see Figure 13).
2. Pressurize supply piping system by either using compressed air or opening propane supply tank valve.
3. Check all joints from propane supply tank to manual shutoff valve (see Figure 14). Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak that must be corrected.
4. Correct any leak.

PRESSURE TESTING HEATER GAS CONNECTIONS

1. Open manual shutoff valve (see Figure 13).
2. Open propane supply tank valve.
3. Make sure heater's control knob is in the OFF position.
4. Check all joints from manual shutoff valve to thermostat gas valve (models CGP18T and CGP28T) or control valve (model CGP18) (see Figure 14). Apply mixture of liquid soap and water to gas joints. Bubbles forming show a leak that must be corrected.
5. Correct any leak.
6. Light heater (see OPERATING HEATER, pages 13 thru 18). Check the rest of the internal joints for leaks.
7. Turn off heater (see OPERATING HEATER, pages 13 thru 18).
8. Replace front panel.

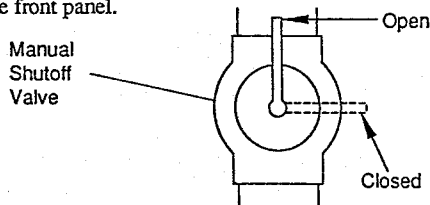


Figure 13 - Manual Shutoff Valve

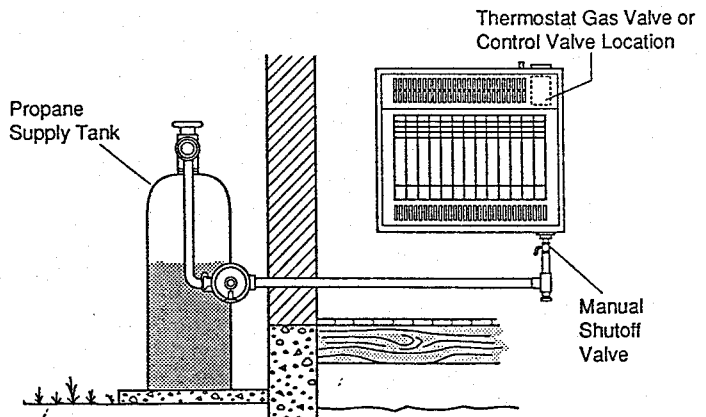


Figure 14 - Checking Gas Joints

OPERATING HEATER

Models CGP18T
and CGP28T

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.

- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. 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.

WHAT TO DO IF YOU SMELL GAS

- 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.
- C. 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. Force or attempted repair may result in a fire or explosion.
 - D. 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.

LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above.
2. Make sure manual shutoff valve is fully open.
3. Turn control knob clockwise  to the OFF position.

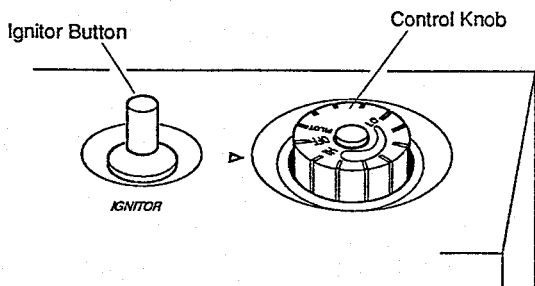



Figure 15 - Control Knob In The OFF Position

Continued

4. Wait five (5) minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information at the top of page 13. If you don't smell gas, go to next step.
5. Turn control knob counterclockwise  to the PILOT position. Press in control knob for five (5) seconds (see Figure 15).
- Note:* You may be running this heater for the first time after hooking up to gas supply. If so, the control knob may need to be pressed in for 30 seconds. This will allow air to bleed from the gas system.
- If control knob does not pop up when released, contact a qualified service person for repairs.
6. With control knob pressed in, push down and release ignitor button. This will light pilot. The pilot is attached to the front of burner. The pilot can be seen through the glass panel. If needed, keep pressing ignitor button until pilot lights.
- Note:* If pilot does not light, refer to TROUBLESHOOTING, pages 20 thru 22. Also contact a qualified service person. Until repairs are made, the pilot can be lit with match. To light pilot with match, see MANUAL LIGHTING PROCEDURE, page 15.

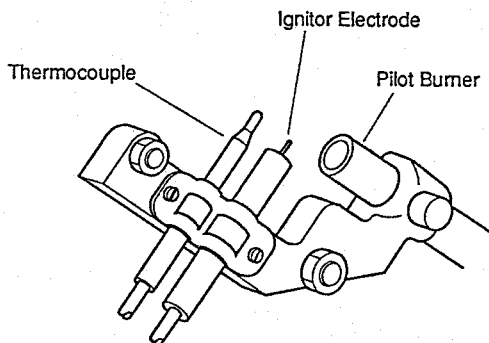



Figure 16 - Pilot


7. Keep control knob pressed in for 30 seconds after pilot is lit. After 30 seconds, release control knob.
- Note:* If pilot goes out, repeat steps 5 thru 7. This heater has a safety interlock system. Wait one (1) minute before lighting pilot again.
8. Turn control knob counterclockwise  to desired heating level. The main burner should light. Heater can be set anywhere between the HI and LO positions.

⚠ CAUTION


Do not try to adjust heating levels by using the manual shut-off valve.

TO TURN OFF GAS TO APPLIANCE

Shutting Off Heater

1. Turn control knob clockwise  to the OFF position.

Shutting Off Burner Only (pilot stays lit)

1. Turn control knob clockwise  to the PILOT position.

THERMOSTAT CONTROL OPERATION

(Models CGP18T and CGP28T Only)

The thermostatic control used on these models differs from standard thermostats. Standard thermostats simply turn on and off the burner. The thermostat used on this heater senses the room temperature. The thermostat adjusts the amount of gas flow to the burner. This increases or decreases the burner flame height. At times the room may exceed the set temperature. If so, the burner will shut off. The burner will cycle back on when room temperature drops below the set temperature. The control knob can be set to any heat level between HI and LO.

Note: Since the thermostat sensing bulb measures the temperature of air near the heater cabinet, this may not always agree with room temperature (depending on housing construction, installation location, room size, open air temperatures, etc.). Frequent operation of your heater will enable you to determine your own comfort levels.

MANUAL LIGHTING PROCEDURE

1. Remove front panel (see Figure 9, page 9).
2. Follow steps 1 thru 5 under LIGHTING INSTRUCTIONS, pages 13 and 14.
3. With control knob pressed in, strike match. Hold match to pilot until pilot lights.
4. Replace front panel.

OPERATING HEATER Model CGP18

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.

- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. 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.

WHAT TO DO IF YOU SMELL GAS

- 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.
- C. 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. Force or attempted repair may result in a fire or explosion.
 - D. 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.

LIGHTING INSTRUCTIONS

1. STOP! Read the safety information above.
2. Make sure manual shutoff valve is fully open.
3. Turn control knob clockwise  to the OFF position.

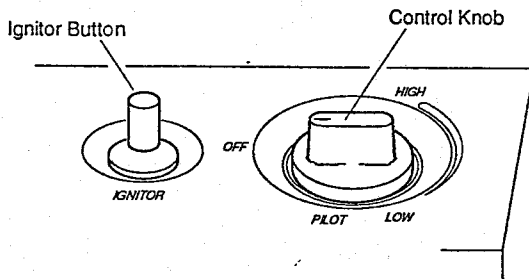



Figure 17 - Control Knob In The OFF Position

4. Wait five (5) minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information at the top of page 16. If you don't smell gas, go to next step.
5. Press in control knob and turn counterclockwise  to the PILOT position. Keep control knob pressed in for five (5) seconds (see Figure 17).

Note: You may be running this heater for the first time after hooking up to gas supply. If so, the control knob may need to be pressed in for 30 seconds. This will allow air to bleed from the gas system.

 - If control knob does not pop up when released, contact a qualified service person for repairs.
6. With control knob pressed in, push down and release ignitor button. This will light pilot. The pilot is attached to the front of burner. The pilot can be seen through the glass panel. If needed, keep pressing ignitor button until pilot lights.

Note: If pilot does not light, refer to TROUBLESHOOTING, pages 20 thru 22. Also contact a qualified service person. Until repairs are made, the pilot can be lit with match. To light pilot with match, see MANUAL LIGHTING PROCEDURE, page 18.

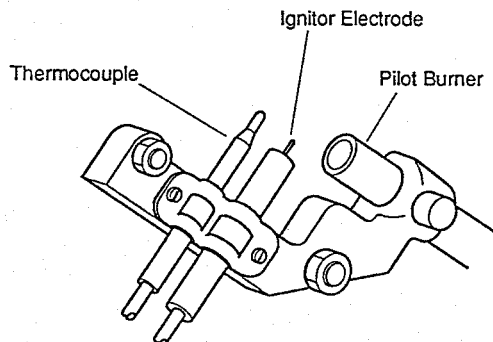




Figure 18 - Pilot

7. Keep control knob pressed in for 30 seconds after pilot is lit. After 30 seconds, release control knob.

Note: If pilot goes out, repeat steps 5 thru 7.
8. Turn control knob counterclockwise  to the LOW position. The main burner should light. Heater can be set anywhere between HIGH and LOW. To turn control knob from LOW to a higher setting, press in the control knob and turn counterclockwise .

Note: Both HIGH and LOW are locked positions. The control knob must be pressed in before turning from these positions.

CAUTION

Do not try to adjust heating levels by using the manual shut-off valve.


INSPECTING BURNER

TO TURN OFF GAS TO APPLIANCE

Shutting Off Heater

1. Turn control knob clockwise  to the PILOT position.
2. Press in control knob and turn clockwise  to the OFF position.

Shutting Off Burner Only (pilot stays lit)

1. Turn control knob clockwise  to the PILOT position.

MANUAL LIGHTING PROCEDURE

1. Remove front panel (see Figure 9, page 9).
2. Follow steps 1 thru 5 under LIGHTING INSTRUCTIONS, pages 16 and 17.
3. With control knob pressed in, strike match. Hold match to pilot until pilot lights.
4. Replace front panel.

The pilot flame pattern and burner flame pattern should be checked often.

PILOT FLAME PATTERN

Figure 19 shows a correct pilot flame pattern. Figure 20 shows an incorrect pilot flame pattern. The incorrect pilot flame is not touching the thermocouple. This will cause the thermocouple to cool. When the thermocouple cools, the heater will shut down.

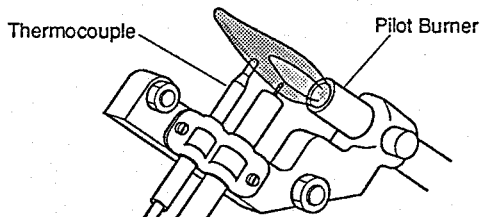


Figure 19 - Correct Pilot Flame Pattern

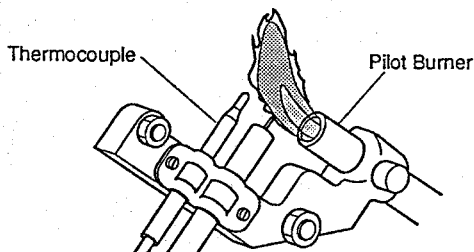


Figure 20 - Incorrect Pilot Flame Pattern

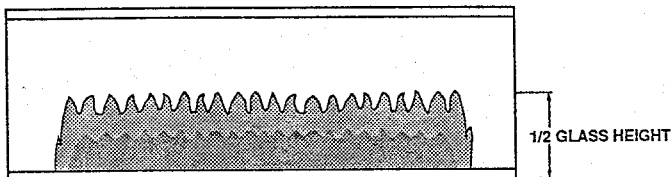
Continued

If pilot flame pattern is incorrect, as shown in Figure 20

- turn heater off (see TO TURN OFF GAS TO APPLIANCE, page 15 [models CGP18T and CGP28T] or page 18 [model CGP18])
- see TROUBLESHOOTING, pages 20 thru 22

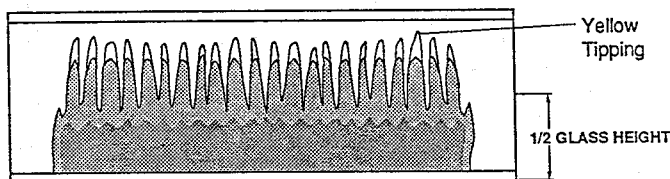
BURNER FLAME PATTERN

Figure 21 shows a correct burner flame pattern. Figure 22 shows an incorrect burner flame pattern. The incorrect burner flame pattern shows yellow tipping of the flame. It also shows the flame higher than 1/2 the glass panel height.



**CORRECT FLAME PATTERN
AT HIGH POSITION**

Figure 21 - Correct Burner Flame Pattern



**INCORRECT FLAME PATTERN
AT HIGH POSITION**

Figure 22 - Incorrect Burner Flame Pattern

If burner flame pattern is incorrect, as shown in Figure 22

- turn heater off (see TO TURN OFF GAS TO APPLIANCE, page 15 [models CGP18T and CGP28T] or page 18 [model CGP18])
- see TROUBLESHOOTING, pages 20 thru 22

CLEANING AND MAINTENANCE

⚠ WARNING

Be sure heater is turned off and cool before cleaning.

⚠ CAUTION

Control areas, burner, and circulating air passageways of the heater must be kept clean. Inspect these areas of the heater before each use. Have heater inspected yearly by a qualified service person. More frequent cleaning may be needed due to excessive lint from carpeting, bedding material, etc.

- Use a vacuum cleaner or pressurized air to keep heater clean. Be especially careful to keep the ODS/pilot clean.
- Keep the cabinet clean. Dampen a soft cloth with a mild soap and water mixture. Wipe the cabinet to remove dust.

TROUBLE-SHOOTING

WARNING

Make sure heater is turned off, unplugged, and cool before servicing. All service and repairs should be done by a qualified service person.

CAUTION

Never use a wire, needle, or similar object to clean pilot. This can damage the pilot unit.

OBSERVED FAULT	POSSIBLE CAUSE	REMEDY
When ignitor button is pressed, there is no spark at pilot	1. Ignitor electrode positioned wrong	1. Replace ignitor
	2. Ignitor electrode broken	2. Replace ignitor
	3. Ignitor electrode not connected to ignitor cable	3. Reconnect ignitor cable
	4. Ignitor cable pinched or wet	4. Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry
	5. Piezo ignitor nut is loose	5. Tighten nut holding piezo ignitor to heater cabinet. Nut is located inside heater cabinet at top
	6. Broken ignitor cable	6. Replace ignitor cable
	7. Bad piezo ignitor	7. Replace piezo ignitor
When ignitor button is pressed, there is spark at pilot but no ignition	1. Gas supply turned off or manual shutoff valve closed	1. Turn on gas supply or open manual shutoff valve
	2. Control knob not in PILOT position	2. Turn control knob to PILOT position
	3. Control knob not pressed in while in PILOT position	3. Press in control knob while in PILOT position
	4. Air in gas pipes when installed	4. Continue holding down control knob. Repeat igniting operation until air is removed
	5. Depleted gas supply	5. Contact local propane gas company
	6. Pilot (ODS) is clogged	6. Replace pilot assembly
	7. Gas regulator setting is not correct	7. Replace gas regulator
Pilot lights but flame goes out	1. Control knob not fully pressed in	1. Press in control knob fully
	2. Control knob not pressed in long enough	2. After pilot lights, keep control knob pressed in for 30 seconds

Continued

Continued

OBSERVED FAULT	POSSIBLE CAUSE	REMEDY
Pilot lights but flame goes out (<i>continued from page 20</i>)	3. Safety interlock system has been triggered (models CGP18T and CGP28T only)	3. Wait one (1) minute for safety interlock system to reset. Repeat ignition operation.
	4. Manual shut-off valve not fully open	4. Fully open manual shut-off valve
	5. Thermocouple connection loose at control valve	5. Hand tighten until snug, then tighten 1/4 turn more
	6. A) Low manifold pressure causing pilot flame not to touch thermocouple. Thermocouple cools causing pilot to go out.	6. A) Contact local propane gas company
	B) Faulty pilot causing pilot flame not to touch thermocouple. The thermocouple cools causing pilot to go out.	B) Replace pilot
	7. Thermocouple damaged	7. Replace thermocouple
	8. Control valve damaged	8. Replace control valve
Burner does not light after pilot is lit	1. Burner orifice is clogged	1. Clean or replace burner orifice
	2. Burner orifice diameter is too small	2. Replace burner orifice
	3. Inlet gas pressure is too low	3. Contact local propane gas company
Delayed ignition of burner	1. Manifold pressure is too low	1. Contact local propane gas company
	2. Burner orifice is clogged	2. Clean or replace burner orifice
Burner backfiring during combustion	1. Burner orifice is clogged or damaged	1. Clean or replace burner orifice
	2. Burner damaged	2. Replace burner
	3. Gas regulator malfunction	3. Replace gas regulator
Yellow flame during burner combustion	1. Not enough air	1. Check burner for dirt and debris. If found, clean burner.
	2. Gas regulator malfunction	2. Replace gas regulator
Slight smoke or odor during initial operation	1. Residues from manufacturing processes	1. Problem will be eliminated after a few hours of operation

⚠ WARNING

If you smell gas

- Shut off gas supply.
- 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.

OBSERVED FAULT	POSSIBLE CAUSE	REMEDY
Heater produces unwanted odors	<ol style="list-style-type: none">1. Odors can be caused by odors brought into room by paint, hair spray, glues, etc.2. Low fuel supply3. Gas leak. See Warning statement at top of page.	<ol style="list-style-type: none">1. Ventilate room and stop using odor causing products while heater is running2. Refill supply tank3. Locate and correct all leaks. See CHECKING GAS CONNECTIONS, page 11.
Heater shuts off in use (ODS operates)	<ol style="list-style-type: none">1. Not enough fresh air is available2. ODS malfunction	<ol style="list-style-type: none">1. Open window and/or door for ventilation2. Replace ODS
Gas odor even when control knob is in OFF position	<ol style="list-style-type: none">1. Gas leak. See Warning statement at top of page.2. Control valve malfunction	<ol style="list-style-type: none">1. Locate and correct all leaks. See CHECKING GAS CONNECTIONS, page 11.2. Replace control valve
Gas odor during combustion	<ol style="list-style-type: none">1. Foreign matter between control valve and burner2. Gas leak. See Warning statement at top of page.	<ol style="list-style-type: none">1. Disassemble gas tubing and remove foreign matter2. Locate and correct all leaks. See CHECKING GAS CONNECTIONS, page 11.

TECHNICAL SERVICE

You may have further questions about installation, operation, or troubleshooting. If so, contact DESA International's Technical Service Department at 1-800-323-5190.

SPECIFICATIONS

	CGP18/CGP18T	CGP28T
B.T.U (Variable)	9,000/18,000	14,000/28,000
Type Gas	Propane Only	Propane Only
Ignition	Piezo	Piezo
Pressure Regulator Setting	8" W.C.	8" W.C.
Burner Orifice Diameter	.051" (drill size 56/.0465)	.063" (drill size 52/.0635)
Inlet Gas Pressure (in. of water)		
Maximum	14"	14"
Minimum	11"	11"
Dimensions, Inches (H x W x D)		
Heater	23.5 x 18.5 x 8.0	23.5 x 25.9 x 8.0
Carton	25.8 x 21.3 x 10.1	25.8 x 28.7 x 10.1
Weight (pounds)		
Heater	22	30
Shipping	27	35

SERVICE HINTS

When gas pressure is too low

- pilot will not stay lit
- burner will have delayed ignition
- heater will not produce specified heat
- propane gas supply may be low

When gas quality is bad

- pilot will not stay lit
- burner will produce flames and soot
- heater will backfire when lit

You may feel your gas pressure is too low or gas quality is bad. If so, contact your local propane gas supplier.

REPLACEMENT PARTS

Note: Use only original replacement parts. This will protect your warranty coverage for parts replaced under warranty.

Parts Under Warranty

Contact authorized dealers of this product. If they can't supply original replacement part(s), either contact your nearest Parts Central (see page 24) or call DESA International at (502) 781-9600.

When calling DESA International, have ready

- your name
- your address
- your heater's model number
- how heater was malfunctioning
- type of gas used (propane or natural gas)
- purchase date

In most cases, we will ask you to return the defective part to the factory.

Parts Not Under Warranty

Contact authorized dealers of this product. If they can't supply original replacement part(s), either contact your nearest Parts Central (see page 24) or call DESA International at (502) 781-9600.

When calling DESA International, have ready

- your heater's model number
- the replacement part number

PARTS CENTRALS

These Parts Centrals are privately owned businesses. They have agreed to support our customer's needs by providing original replacement parts and accessories.

Portable Heater Parts
342 N. Country Rd 400 East
Valparaiso, IN 46383
(219) 462-7441
Parts Department
1-800-362-6951

Tarantin Tank Company
2 Jackson Street
Freehold, NJ 07728
In NJ (201) 780-9340
Outside NJ 1-800-922-0794

Albany Ladder
1586 Central Avenue
Albany, NY 12205
(518) 869-5335
Dave Margison
In NY 1-800-354-7368
In PA, MD, DE, NJ, CT, RI, MA, NH, VT
1-800-722-3365

K. A. Bergquist Company
7939 W. Central Avenue
Toledo, OH 43617
(419) 841-7553
In OH 1-800-472-7553
Outside OH 1-800-537-7518

Cans Unlimited, Inc.
P. O. Box 645
Taylor, SC 29687
(803) 879-3009
1-800-845-5301
Al Grover

Dealer LP Equipment
1861 B Vanderhorn Drive
Memphis, TN 38134
In TN (901) 386-8780
Outside TN 1-800-238-3284

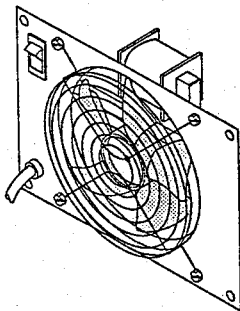
SERVICE PUBLICATIONS

A service manual may be purchased from the address listed on the back page of this manual. Send a check for \$5.00 payable to DESA International.

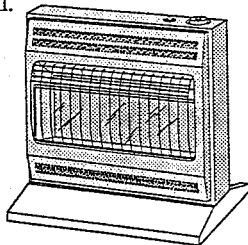
ACCESSORIES

These heater accessories can be purchased from your local dealer. If they can not supply these accessories, call DESA International at (502) 781-9600 or write to the address listed on the back page of this manual.

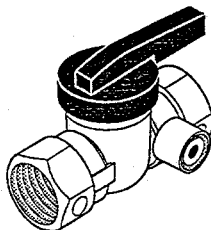
FAN KIT - GA2100A
For all models. Provides better heat distribution. Makes heater more efficient.



FLOOR MOUNTING STAND
Models CGP18 & CGP18T - GA4000
Model CGP28T - GA4010
For locating heater on the floor, away from a wall.

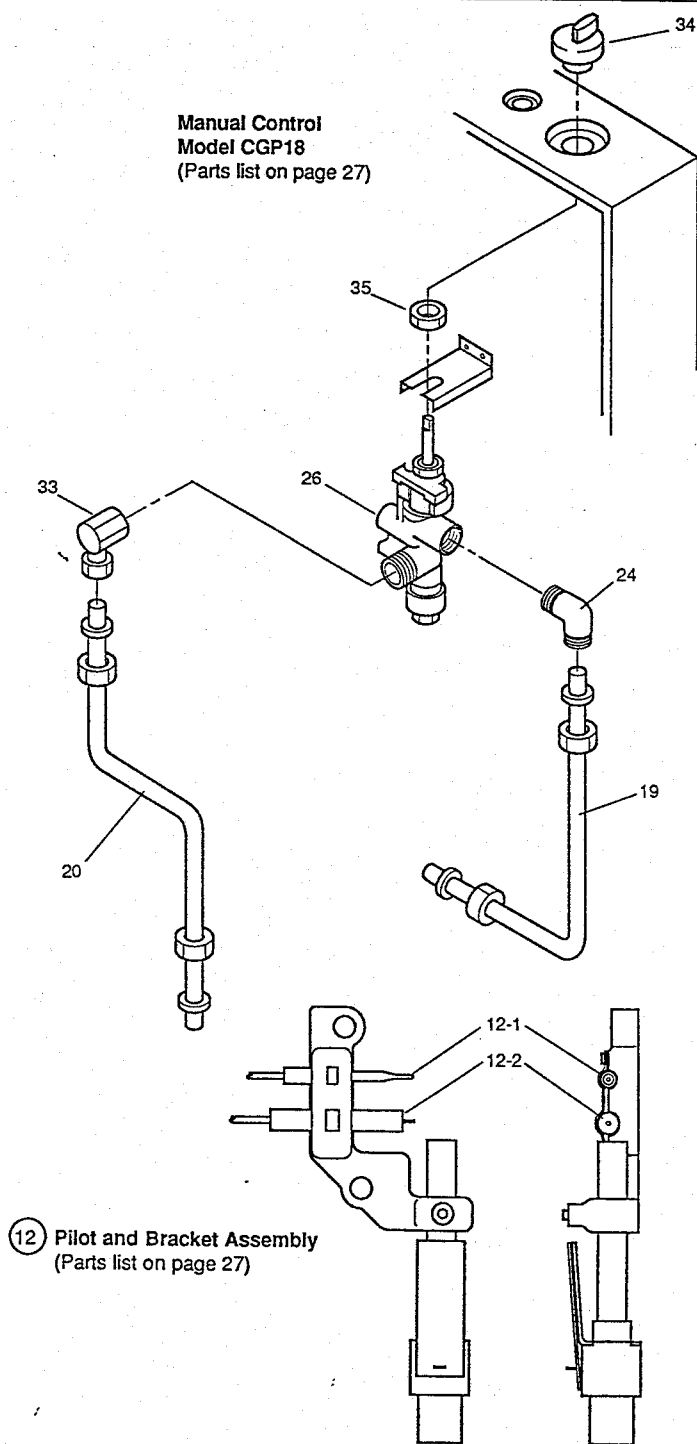


**MANUAL SHUTOFF
VALVE - GA5010**
For all models. Manual shutoff valve with 1/8" NPT tap.

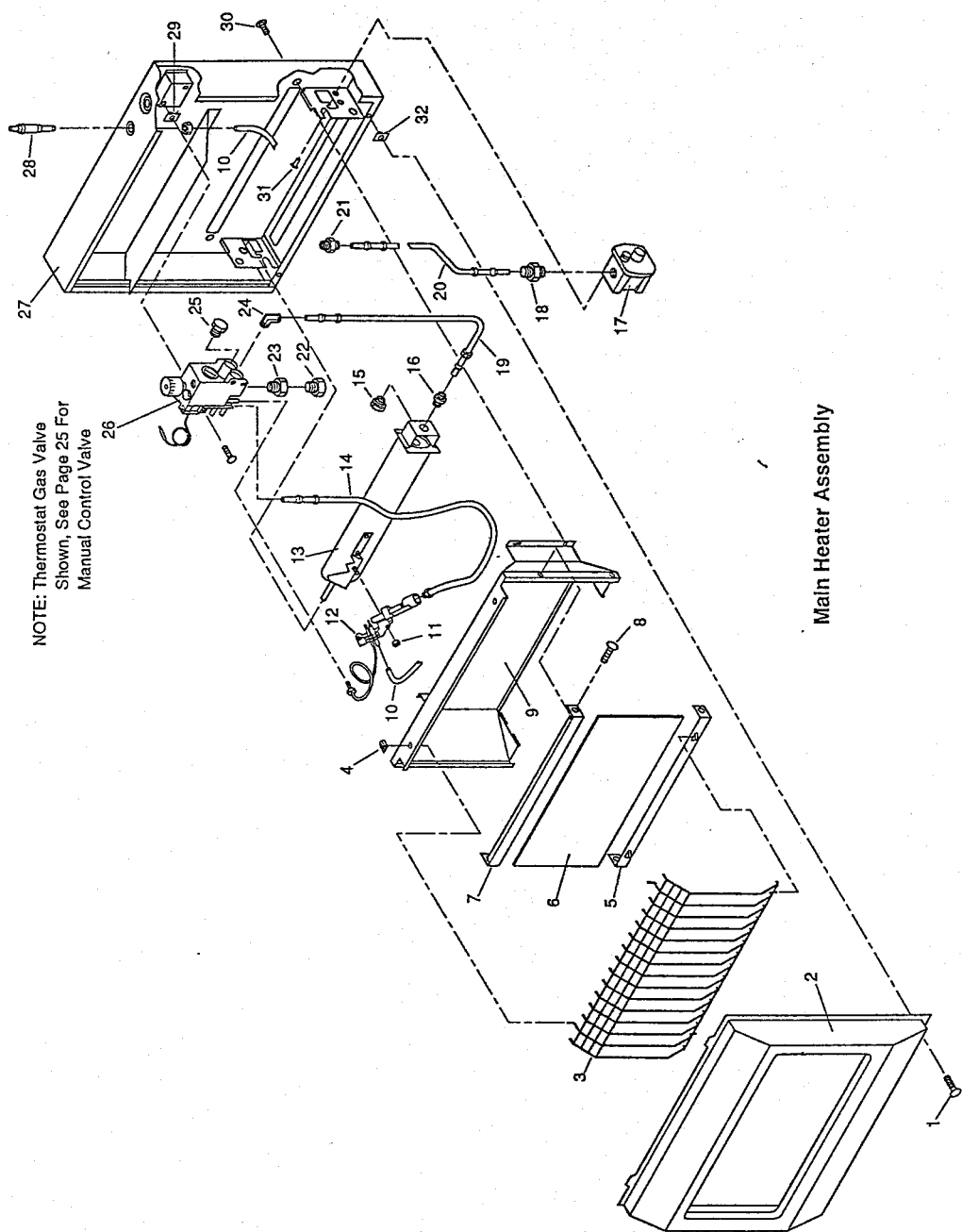


ILLUSTRATED PARTS LIST

Manual Control
Model CGP18
(Parts list on page 27)



12 Pilot and Bracket Assembly
(Parts list on page 27)



Main Heater Assembly

NOTE: Thermostat Gas Valve
Shown, See Page 25 For
Manual Control Valve

PARTS LIST

This list contains replaceable parts used in your heater. When ordering parts, follow the instructions listed under REPLACEMENT PARTS on page 23 of this manual.

KEY NO.	PART NUMBER FOR			DESCRIPTION	QTY.
	CGP18	CGP18T	CGP28T		
1	098304-01	098304-01	098304-01	Screw, #10 x 3/8"	2
2	098742-03	098742-03	098742-04	Front Panel	1
3	098197-01	098197-01	098197-02	Grill Guard	1
4	098342-01	098342-01	098342-01	Clip, Grill Guard	2
5	098533-01BR	098533-01BR	098533-02BR	Bottom Glass Retainer	1
6	098260-01	098260-01	098260-02	Glass Panel	1
7	098532-01BR	098532-01BR	098532-02BR	Top Glass Retainer	1
8	M11084-37	M11084-37	M11084-37	Screw, #8 x 1/4"	4
9	098352-01BR	098352-01BR	098352-02BR	Deflector Unit	1
10	098271-02	098271-02	098271-02	Ignitor Cable	1
11	098249-01	098249-01	098249-01	Nut, M5	2
12	098245-01	098245-01	098245-01	Pilot and Bracket Assembly	1
12-1	098514-01	098514-01	098514-01	Thermocouple	1
12-2	098515-01	098515-01	098515-01	Ignitor Electrode	1
13	098242-01	098242-01	098243-01	Burner	1
14	098517-01	098517-01	098517-01	3/16" Pilot Tubing	1
15	098251-01	098251-01	098251-03	Injector	1
16	098250-01	098250-01	098250-01	Injector Holder	1
17	098924-03	098924-03	098924-03	Pressure Regulator Kit	1
18	098274-01	098274-01	098274-01	1/2" NPT Male Connector	1
19	098519-01	098518-01	098518-01	3/8" Outlet (Burner) Tubing	1
20	098521-01	098520-01	098520-01	3/8" Inlet Tubing	1
21	—	098264-01	098264-01	3/8" NPT Male Connector	1
22	—	098276-01	098276-01	1/8" NPT Plug	1
23	—	098277-01	098277-01	3/8" to 1/8" NPT Bushing	1
24	098265-01	098265-01	098265-01	3/8" NPT Male Elbow	1
25	—	098275-01	098275-01	3/8" NPT Plug	1
26	—	098522-01	098522-02	Thermostat Gas Valve	1
26	098246-01	—	—	Control Valve	1
27	098529-01	098530-01	098531-01	Cabinet	1
28	097159-01	097159-01	097159-01	Piezo Ignitor	1
29	—	098319-01	098319-01	Fastener, "U" Nut	2
30	M11084-38	M11084-38	M11084-38	Screw, #8 x 3/8"	2
31	M11084-38	M11084-38	M11084-38	Screw, #8 x 3/8"	2
32	M11271-8	M11271-8	M11271-8	Fastener, "U" Nut	2
33	098268-01	—	—	1/2" NPT Female Elbow	1
34	098354-01	—	—	Control Knob	1
35	098508-01	—	—	Valve Retainer Nut	1

WARRANTY INFORMATION

KEEP THIS WARRANTY

Model _____

Serial No. _____

Date Purchased _____

Always specify model and serial numbers when communicating with the factory.

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty. We make no other warranty, expressed or implied.

LIMITED WARRANTY COMFORT GLOW UNVENTED PROPANE GAS HEATERS

DESA International warrants this product to be free from defects in materials and components for one (1) year from the date of first purchase, provided that the product has been properly installed, operated and maintained in accordance with all applicable instructions. To make a claim under this warranty the Bill of Sale or cancelled check must be presented.

This warranty is extended only to the original retail purchaser. This warranty covers only the cost of part(s) required to restore this heater to proper operating condition. Warranty part(s) MUST be obtained through authorized dealers of this product and/or DESA International who will provide original factory replacement parts. Failure to use original factory replacement parts voids this warranty. The heater MUST be installed by a qualified installer in accordance with all local codes and instructions furnished with the unit.

This warranty does not apply to parts that are not in original condition because of normal wear and tear, or parts that fail or become damaged as a result of misuse, accidents, lack of proper maintenance or defects caused by improper installation. Travel, diagnostic cost, labor, transportation and any and all such other costs related to repairing a defective heater will be the responsibility of the owner.

TO THE FULL EXTENT ALLOWED BY THE LAW OF THE JURISDICTION THAT GOVERNS THE SALE OF THE PRODUCT; THIS EXPRESS WARRANTY EXCLUDES ANY AND ALL OTHER EXPRESSED WARRANTIES AND LIMITS THE DURATION OF ANY AND ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO ONE (1) YEAR FROM THE DATE OF FIRST PURCHASE; AND DESA INTERNATIONAL'S LIABILITY IS HEREBY LIMITED TO THE PURCHASE PRICE OF THE PRODUCT AND DESA INTERNATIONAL SHALL NOT BE LIABLE FOR ANY OTHER DAMAGES WHATSOEVER INCLUDING INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow a limitation on how long an implied warranty lasts or an exclusion or limitation of incidental or consequential damages, so the above limitation on implied warranties, or exclusion or limitation on damages may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

For information about this warranty write:

DESA[®]
INTERNATIONAL

P.O. Box 90004
2701 Industrial Drive
Bowling Green, KY 42102-9004