

CARE & USE MANUAL



BUILT-IN & FREESTANDING GRILL
BY FERNO GRILLS

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WARNING!

READ THIS MANUAL CAREFULLY and completely before using your grill to reduce the risk of:

1. Fire
2. Burn hazard, personal injury, or property damage
3. Burned food or unpleasant cooking experiences
4. Unapproved installation or servicing

THIS PRODUCT IS DESIGNED FOR OUTDOOR USE ONLY. Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death.

Read this manual thoroughly before installation, use, or servicing of this product.



DANGER!

IF YOU SMELL GAS:

1. Shut off gas to the grill.
2. Extinguish any open flame.
3. Open lid. Use caution as the lid may be HOT.
4. If the gas odor continues, keep everyone away from the grill and immediately call your gas company or your fire department.



WARNING!

1. DO NOT store or use gasoline or any other flammable liquids or vapors in the vicinity of this or any other appliance.
2. Propane (LP) gas cylinders, not connected to the grill, shall NOT be stored in the vicinity of this, or any other appliance. Propane cylinders must be stored outdoors.



WARNING! California Proposition 65

1. The burning of gas cooking fuels generates by-products which are on the list of substances, known by some states, to cause cancer or reproductive harm.
2. To minimize exposure to such substances, always operate this appliance according to the care and use instructions found in this manual.
3. NOTE TO INSTALLERS: ensure that grill owner receives this manual after installation.



WARNING!

1. NEVER cover slots, holes, or passages in the grill bottom or cover the entire grill surface with material such as aluminum foil. Doing so blocks air flow through the grill and may cause carbon monoxide poisoning.
2. Aluminum foil linings may trap heat causing a fire hazard.

WARNING!

- Never use dented, rusty, or damaged propane cylinders. Never store additional or empty propane cylinders in the grill cabinet, the island enclosure, or in the vicinity of this or any other appliance. Never store propane cylinders indoors or on their sides.
- Children should NEVER be left alone or unattended in the area where the grill is located. Place your grill well away from areas where children play. Do not store items that may be of interest to children in or around the grill or island enclosure.
- Never attempt to move the grill when hot. When in use, portions of the grill are hot enough to cause severe burns.
- Always maintain the required clearances to combustibles as detailed in this manual. The grill is designed for outdoor use ONLY. Never use inside a garage, building, shed, breezeway, or other enclosed area. Do not use this grill under any overhead combustible construction.
- Gas grills are not designed or certified to be used or installed on any recreational vehicle, portable trailers, boats, or any other moving installation.
- Always have an ABC Fire Extinguisher accessible. Never attempt to extinguish a grease fire with water or other liquids.
- Store your grill in a well-ventilated area when not in use. If stored indoors, detach and leave propane cylinders OUTDOORS in a well-ventilated area, away from heat or where children may have access to them.
- Keep electrical supply cords and fuel supply hoses away from all heated surfaces. Electrical supply cords should be placed away from walkways to avoid a tripping hazard.
- Do not repair or replace any part of this grill unless specifically recommended in this manual.
- If this grill is installed by a professional installer or technician, be sure that he/she shows you where the gas supply shut-off valve is located. All gas lines must have a shut-off valve that is readily and easily accessible. If you smell gas, shut off all gas supply lines to the grill and check for leaks IMMEDIATELY (refer to 'Leak Test Procedure' in the section entitled 'FINAL CHECKS'). Check for leaks with soap and water only. Never use an open flame to check for gas leaks.
- When using a propane cylinder, inspect the gas supply hose prior to each use of the grill. If there is excessive abrasion or wear, or the hose is cut, it must be replaced before using the grill.
- THIS MANUAL MUST REMAIN WITH THE PRODUCT OWNER FOR FUTURE REFERENCE.



Intertek



This product conforms to ANSI STD Z21.58-2018 and has been tested and approved by Intertek.

To obtain replacement parts or service, contact:

Ferno Grills

Goleta, California

Customer Service: (888) 800-1688 or info@fernogrills.com

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INTRODUCTION

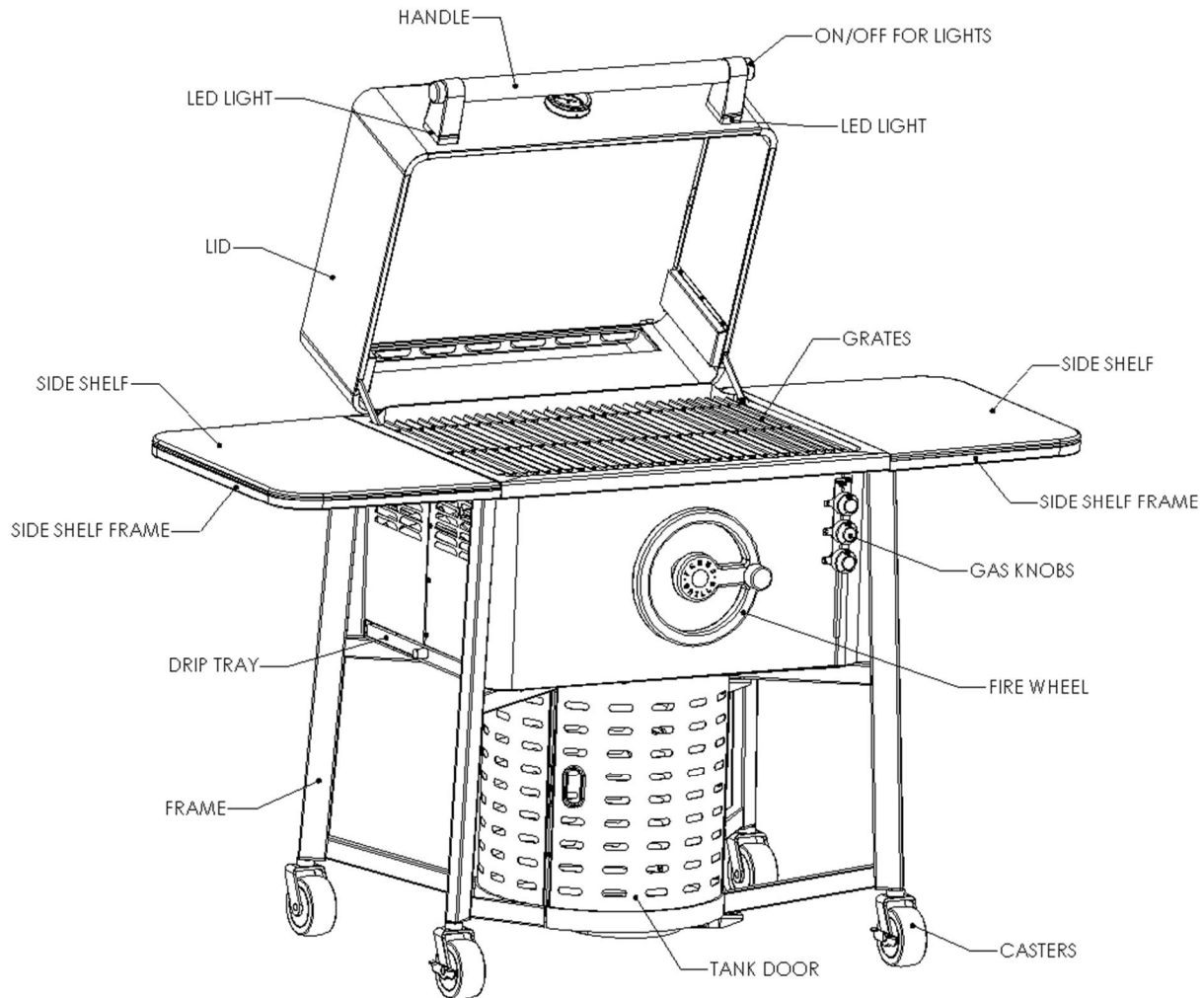
Thank you and congratulations on your purchase of a Ferno Grill! Quality and performance are paramount at Ferno and your purchase means that these values are important to you as well. Please take a moment to read through this guide outlining the proper care and use of your new Ferno Grill. We are sure that you will enjoy many years of great grilling.

-The Ferno Grills Team

IMPORTANT SAFETY PRECAUTIONS

1. Insure all zip ties and packaging materials have been removed from the burners and grill interior.
2. Avoid wearing loose fitting clothing or long sleeves while grilling. They could ignite.
3. Never leave the grill unattended while cooking.
4. Never touch the grill racks, lid, or surrounding metal surfaces with your bare hands while grilling. These surfaces will be HOT.
5. The use of an insulated glove or mitt is recommended while opening or operating the grill. Open the grill lid slowly to allow heat and smoke to escape before fully opening.
6. The grill lid must be fully opened before attempting to light the grill. Do not attempt to light with the grill lid closed as an explosion could occur. Do not lean over the grill when lighting.
7. Do not heat unopened food containers on the grill, as pressure will build up and the container can explode.
8. Do not repair or replace any part of the grill unless specifically recommended in this manual. A qualified technician should perform all service.
9. Do not use aluminum foil on the grill racks. This will prevent proper ventilation and allow excessive heat to build inside the grill. Such heat can damage components of the grill.
10. Use caution when cooking excessively fatty meats as the oils produced can cause flare-ups. Keep a water spray bottle close by to reduce these flare-ups. Damage created by uncontrolled, internal fires is not covered under the warranty.
11. Never remove the drip tray while grilling. Always ensure that it is pushed all the way in. Hot grease can leak downward and produce a fire or explosion. The drip pan should be cleaned on a regular basis when the grill is cold.
12. Do not lean on the side shelves on freestanding grill applications. Do not place any load of over 25 pounds on the side shelves.
13. If any burner does not light within 5 seconds, turn gas off and wait five (5) minutes before attempting to re-light. If any burner goes out during operation, turn burner off and check for adequate fuel. Wait five (5) minutes before attempting to re-light.
14. When using portable LP gas cylinders, always turn off the main valve on the cylinder after each use.
15. Use caution when operating the grill in windy conditions. When the lid is closed, wind can enter from the back and cause an overheating condition. This can damage the grill and its components. If windy conditions prevail, and the lid is closed, pay attention to the temperature gauge for a sudden drop in temperature. This is a sign that the air flow has been interrupted.
16. Spiders and insects like to nest in the burner venturis. This can disrupt the gas flow and cause a very dangerous condition that can result in a fire in the gas control area, damaging the grill and risking personal injury. If your grill has sat unused for a long time, inspect and clean the burners. See 'Cleaning The Burners' in the section entitled 'Cleaning Your Grill' for further details.

FREESTANDING GRILL OVERVIEW AND SPECIFICATIONS



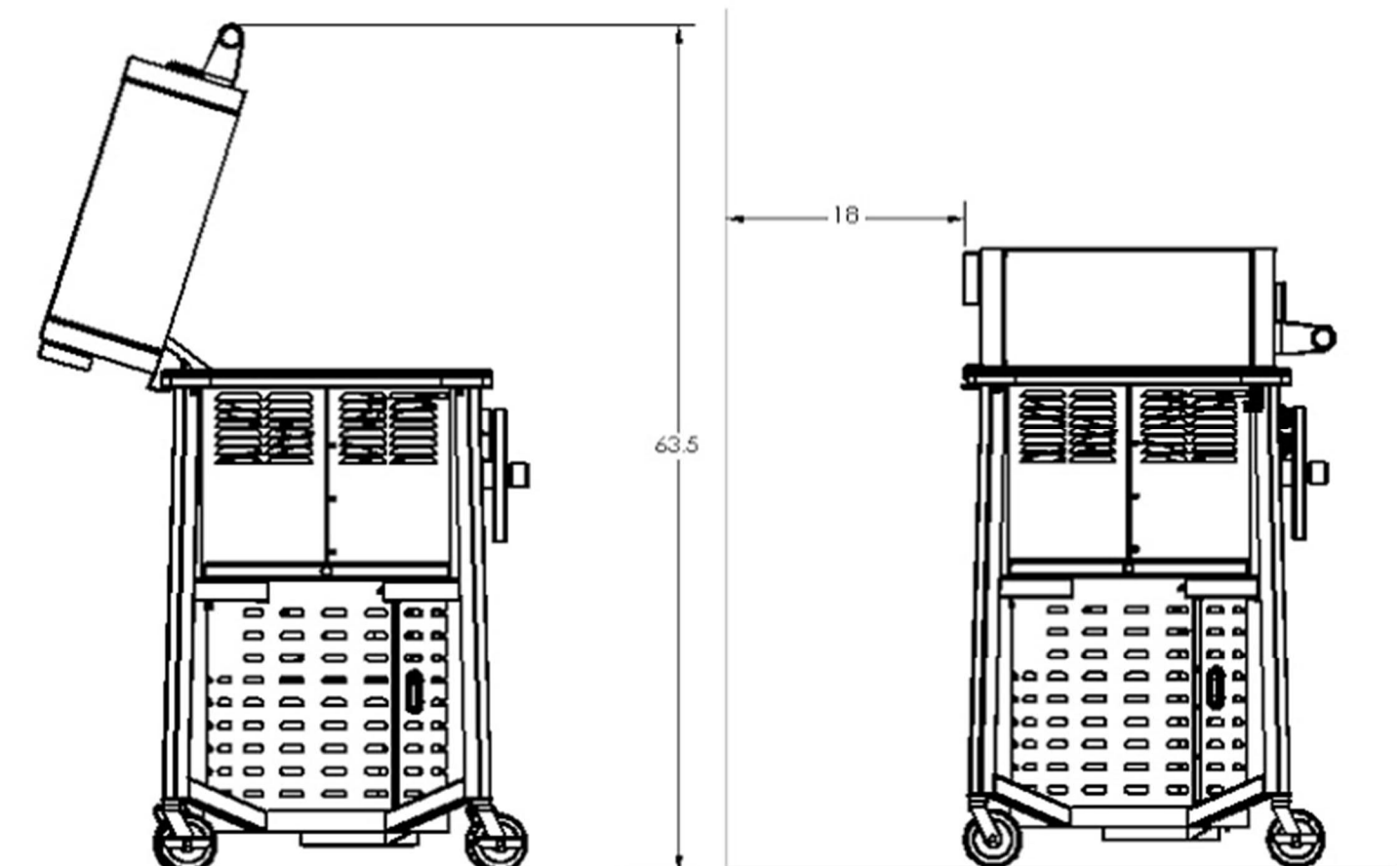
| Grill Model | Height | | | Width | | Depth | | Weight | Cooking Surface | |
|-------------|----------|------------|-------------------------|------------|--------------------|------------|------------|----------------|-----------------|-------------|
| | Lid Open | Lid Closed | Floor to Top of Surface | Frame Base | Surface to Surface | Frame Base | Max. Outer | Grill w/o Tank | Primary | Warming |
| SA-3BLP-01 | 63.5" | 46" | 37" | 38" | 66" | 25" | 24" | 260 lbs | 525 sq. in. | 105 sq. in. |
| SA-3BNG-01 | 63.5" | 46" | 37" | 38" | 66" | 25" | 24" | 260 lbs | 525 sq. in. | 105 sq. in. |

| Grill Model | Fuel | Temp Range | Burners (ea) |
|-------------|-------------|---------------|--------------|
| SA-3BLP-01 | Propane | 150 - 750 Deg | 12,000 BTU |
| SA-3BNG-01 | Natural Gas | 150 - 750 Deg | 12,000 BTU |

FREESTANDING GRILL APPLICATION REQUIREMENTS

Because of their mobility, freestanding grills are more versatile in their applications. They can be moved around to various locations depending on convenience and accessibility. Here are a few points to consider when selecting a location:

1. Locate the grill in an open-air environment. Do not locate under a breezeway, or inside a garage, building, or shed. Proper distance from combustibles must be maintained at all times. Do not locate this grill under any combustible, overhead construction.
2. Select a location where prevailing winds occur from the front. Do not face the back of the grill directly toward oncoming winds. When grilling with the lid closed, winds can enter from the back and disrupt air flow and cause overheating. Damage caused by this overheating is not covered under warranty.
3. If the freestanding grill is using Natural Gas (NG), position the grill in the vicinity of a gas outlet/valve to minimize the amount of piping required to hook up the grill.
4. See the following section entitled 'Unpacking and Set-up' for more information on preparation of your grill



FREESTANDING GRILL UNPACKING AND SET-UP

The Ferno Freestanding & Built-in Grills arrives almost fully assembled and requires only minor assembly steps. Depending on the delivery method, the Freestanding and Built-in Grills may be palletized for ease of shipping and movement. Shipping weight for either model is approximately 275-300 pounds.



WARNING

EXCESSIVE WEIGHT HAZARD

Use 2 or more people to move or install this unit. Failure to follow this instruction can result in personal injury.

CRATE & CARTON: HOW TO REMOVE THE CARTON

1. Cut the main strap holding the grill to the pallet.
2. Remove the straps at the bottom of the carton.
3. Lift off the carton.
4. With assistance, remove the grill from the pallet and place in desired location.

INITIAL SETUP (Disregard side shelf related instructions for Built-in Model applications)

1. Open the lid and cut all zip ties holding the interior contents. Remove the side shelf surfaces, side shelf frames, grill cover and the small hardware and accessories box.
2. Ensure that the burner radiants have not shifted during transit and are seated properly
3. Place each of the side shelf insulators on the brackets, making sure that all of the holes line up.
4. Place the side shelf frame, with the pegs facing up, on the bracket with insulators and align all holes.
5. Using the screws and allen wrench from the provided accessories box, screw the side shelf frame to the brackets. Tighten all screws, do not over-tighten.
6. Set the side shelf surface on top of the side shelf frame with the holes facing down. The side shelf surface holes will align with the pegs on the side shelf frame.
7. Repeat on other side.

INTERIOR PACKAGING

Sturdy zip ties and straps are used to ensure that your grill arrives at your home in the same condition that it left our factory. **MAKE SURE** that you have removed **ALL** zip ties before using your grill.

OPERATION OF YOUR GRILL

INTRODUCTION

Ferno's firewheel gives you unparalleled control of your grill. Turning it clockwise raises the burners closer to the grates, perfect for pre-heating and quick searing. Turning it counterclockwise lowers the flame away from the grates, ideal for avoiding flare-ups and for slow cooking.

GRILLING IN WINDY CONDITIONS

Using your grill in windy conditions may disrupt the air flow. This can be particularly disruptive (and damaging) if you are grilling ON HIGH with the lid closed and excessive wind is coming into the grill. This condition can trap the hot air and gasses inside the grill and cause an overheating condition. An early warning sign of this condition can be seen if the grill had been previously preheated, and the inside temperature shown by the lid thermometer suddenly begins to DECREASE or FAILS TO RISE. The wind has prevented the hot gases from venting out of the rear, and are building up inside of the grill, away from the thermometer probe. The knobs and front panel will have become extremely HOT. To immediately remedy this condition, open the lid and turn down the heat. Any damage caused by this overheating condition is NOT COVERED by the warranty.

For freestanding grills, this condition can also be remedied by moving the grill to a new location, such that wind does not enter from the rear. See section entitled 'Freestanding Grill Application Requirements'.

The grill and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 0.5 psi (3.5 kPa).

The grill must be isolated from the gas supply piping system by closing its individual manual 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).



WARNING

NEVER connect a gas line directly to the grill. A pressure regulator **MUST** be installed on all gas equipment. All local codes require this and Ferno supplies the correct regulator with your grill. Removing or failing to install the pressure regulator can result in fire and serious personal injury, and will void the factory warranty.

The grill is factory set to use either propane (LP) or natural gas (NG). It is critical that the gas you use matches that which the grill is set up for. You can verify this by checking the rating plate found in one or more of the following locations.

Freestanding Model:

1. The rear of the tank shroud
2. On the inside of the tank shroud

Built-in Model:

1. The bottom of the Drip Tray
2. The lower left side of the grill body

Ensure that the gas supplied meets the minimum pressure requirements. Do not operate the grill on any gas other than that for which the grill has been set.

WATER COLUMN REQUIREMENTS

Both the regulator and the manifold orifices have been tuned for the type of gas specified on the rating plate. All installation and all installation parts must conform with local codes or, in the absence of local codes, with either the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1, or the Propane Storage and Handling Code, CSA B149.2, or the Standard for Recreational Vehicles, NSI A119.2/NFPA 1192, and CSA Z240 RV Series, Recreational Vehicle Code, as applicable.

PRE-GRILL CHECKLIST

BEFORE YOUR FIRST USE

1. Make sure ALL packing materials have been removed from the interior of the grill, and that ALL zip-ties holding contents in place have been removed.
2. Make sure the fuel lines have been connected per instructions in the section entitled 'Gas Connections'.
3. Make sure that you have made all electrical connections and/or installed fresh batteries.
4. A qualified plumber has performed a leak test on all the gas fittings that supply fuel to the grill.

AT EACH NEW SEASON

At the start of each new grilling season, the grill should be inspected. Remove the cooking grates, both upper and lower radiants, check the burners, the burner venturis, the orifices, and the valves for any apparent obstructions. Spiders and other small insects often nest in these areas and can disrupt air and gas flow and can cause damage to the grill or personal injury. Also check all hoses and fittings for damage.

CHECKLIST BEFORE EACH USE

Always make sure that:

1. You do NOT smell gas BEFORE you light the grill. If you smell gas, shut everything OFF and call a qualified plumber to check for leaks. See also 'Leak Test Procedure' in the section entitled 'Final Checks'.
2. The cooking area and cooking grates are free from combustibles that could ignite.
3. The control knobs turn freely.
4. The burners are seated properly.
5. If you are using a Propane cylinder, that the connections have been leak tested. See also 'Leak Test Procedure' in the section entitled 'Final Checks'.
6. If you are using a Propane cylinder, be sure that the gas valve has been turned ON before attempting to light the grill.
7. If you are using Natural Gas (NG), be sure that the main gas valve has been turned ON before attempting to light the grill.
8. Wind is not blowing too strongly into the grill.

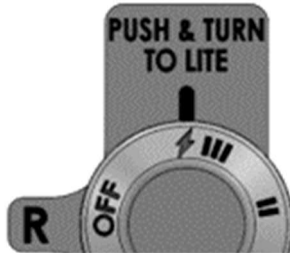
LIGHTING YOUR GRILL

WARNING

1. Never attempt to light the grill if you smell gas.
2. Always light the grill with the lid OPEN.
3. DO NOT release fuel into a closed grill before lighting. This will increase the risk of explosion, property damage, personal injury, and death.
4. When lighting, keep your face and body as far from the grill as possible.
5. If a burner does NOT light within 5 SECONDS, turn the control knob to OFF, and WAIT 5 MINUTES for the gas to dissipate, before attempting to re-ignite.

ELECTRIC IGNITION

1. Open the lid and confirm that all burner control knobs are in the 'OFF' position.
2. For a Propane Tank setup, turn the propane cylinder valve at least one full turn in the counterclockwise direction.
3. For a Natural Gas setup, turn the main gas control valve to ON. The valve is ON when the valve lever is in line and parallel to the gas piping and gas flow. See illustration in the 'TROUBLESHOOTING' section.
4. Depress and turn the desired burner control knob counterclockwise to the LIGHT position, indicated by the ⚡ icon. You will hear a rapid 'clicking' sound indicating all ignition electrodes are sparking. The selected burner should light. If the burner does NOT light within 5 SECONDS, turn the burner control knob to 'OFF' and WAIT 5 MINUTES for the gas to dissipate before you try to re-light. After ignition, set the burner control knob to the desired position.
5. Repeat step 4 for lighting each additional burner.
6. If a burner does not light within 5 SECONDS of turning on the burner control knob, turn the burner control knob to the 'OFF' position. WAIT 5 MINUTES before repeating step 4. If you



smell gas, follow the steps listed in the 'GAS CONNECTIONS' section. If the burners still do not light after several attempts, refer to the instructions below for manual lighting.

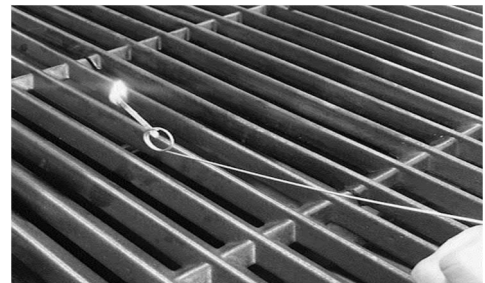
SHUTTING OFF THE GRILL

To shut the grill off, depress each burner control knob and turn clockwise to the 'OFF' position. Always close the valve from the gas supply after each use of the grill.

MANUAL LIGHTING:

Carefully read the previous section 'LIGHTING YOUR GRILL' before attempting to manually light your grill. Manual lighting is used ONLY when the 9V battery used to power your ignition is discharged and there is no replacement battery immediately available.

1. Locate the 'lighting rod' attached inside the tank door (Freestanding Model) or to the right of the Drip Pan opening (Built-in Model). Insert a match in the clip on the end of the rod and light it.
2. Insert the match through an opening in the grates and place to the right side of the burner near the electrode.



3. Push and turn the desired burner control knob counterclockwise to the LIGHT position indicated by the ⚡ icon. If the burner does NOT light within 5 SECONDS, turn the burner control knob to 'OFF' and WAIT 5 MINUTES for the gas to dissipate before you try to re-light.

PRE-HEATING

PRE-HEATING

Pre-heating your grill is an important part of the grilling process. It gives the burners, the radiants, and the grates time to properly and evenly warm up and provides for much more consistent cooking results.

Light your grill per the instructions in the previous section entitled 'LIGHTING YOUR GRILL'. Light all burners and set the burner control knobs to HIGH indicated by the 'III' icon. If you are planning to use only one burner, it is best to pre-heat with all the burners ON and then turn off the burner(s) that you do not plan to use. If the desire is to slow cook food for an extended period of time below 300 degrees, then only light a single burner and set it to LOW indicated on the burner control knobs by the 'I' icon.

Pre-heat the grill for 10 minutes or to 350F degrees, shown on the lid thermometer. NEVER allow the thermometer to go above the 550F degree mark, as this indicates that your grill has become overheated. Damage can occur to the grill because of this and is NOT covered by the warranty.



WARNING

DO NOT leave the grill unattended during the pre-heat process or at ANY time while the grill is in use.

DO NOT pre-heat the grill for more than 15 minutes as overheating can result causing damage to the grill.

TYPES OF HEAT

The ability to raise and lower the burners in your Ferno Grill can create a wide range of heat intensities. This coupled with which burners are turned on, the temperatures set using the burner control knobs, and the lid position (either open or closed), leads to an endless list of cooking techniques. The following paragraphs introduce the different types of heat you can achieve with your Ferno Grill.

DIRECT HEAT

'Direct Heat' is also known as 'Radiant Heat'. The heat radiates directly from the burners through the radiants, rising towards the food above. Direct heat is a 'must have' for general backyard grilling.

INDIRECT HEAT

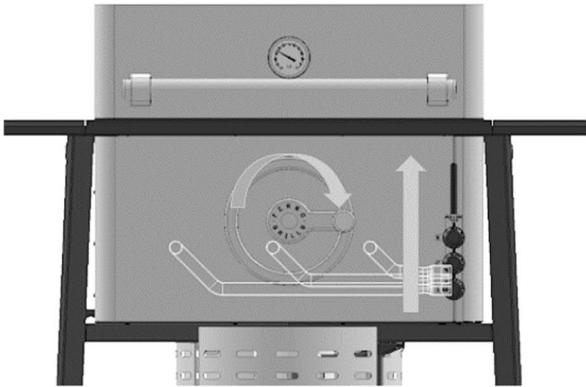
'Indirect Heat' occurs when the heat source is not directly below the food. Heat reaches the food through air movement and not from direct flames. This type of heat is also known as 'convection' cooking and is similar to how many ovens work. It is achieved by placing the food on one side of the grill and lighting the burner(s) on the other side. The burner below the food is turned off. This type of cooking requires that the lid remain closed throughout most of the cooking process. On your Ferno Grill, the heat is also regulated by using the Firewheel to set the burner height as well as adjusting the flame with the burner control knobs.

USING THE FIRE WHEEL

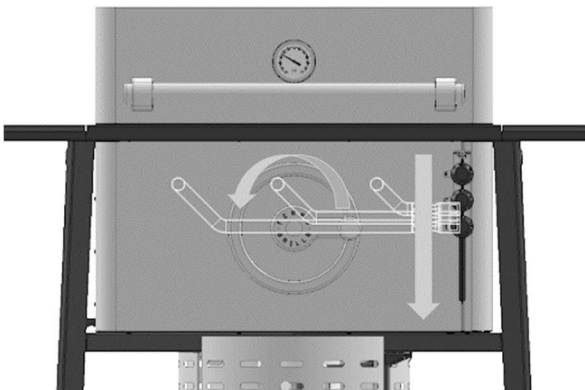
The Firewheel on your Ferno Grill is the first of its kind, adding functionality and bringing an entirely new dimension to gas grilling.

RAISING AND LOWERING THE BURNERS

1. To raise the burners, turn the firewheel clockwise until you've reached your desired height. It is useful to put the burners closer to the grates for pre-heating as well as high heat searing of less flammable foods like fish and vegetables.



2. To lower the burners, turn the firewheel counterclockwise until you've reached the desired height. The low position is crucial for avoiding flare-ups. Additionally, the lowest burner position, when combined with a single burner set on low, allows your Ferno Grill to achieve consistent low temperatures ideal for slow cooking a large variety of foods.



OPTIONAL SMOKER BOX

The purchase of the optional 'Smoker Box' is a great addition to the grilling experience, imparting the flavor of wood smoke to your food.



CAUTION

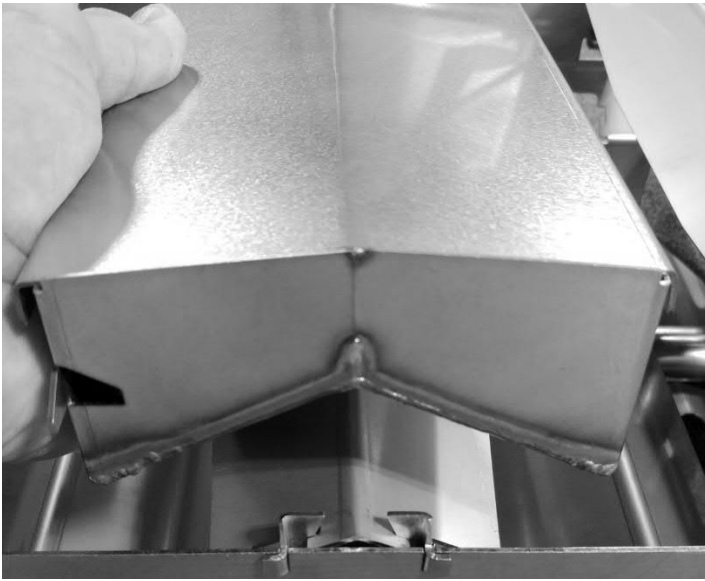
Handle the smoker box with care. The cover becomes **EXTREMELY** hot when in use. Use properly insulated gloves or dry pot holders.

USAGE

The optional 'Smoker Box' is designed to install directly on top of a burner radiant.

1. To use, remove the grate above the burner that you desire to use for the smoker box.
2. Place the smoker box directly on top of the radiant and make sure that the small tabs located on both ends of the smoker box are resting on the edge of the burner bed.

OPTIONAL SMOKER BOX continued



WOOD CHIPS

There are many wood chips available and selection is based on personal taste. The most common are mesquite or hickory. Soak the chips in water for at least 30 minutes before putting them in the box. This will prolong their smoldering time and provide more smoke.

The intensity of the smoke flavor is personal preference, but with extended cooking times, such as with large roasts, you may want to add wood chips and water to the smoker box more than once. Try to limit the number of times you open the lid, as each interruption can add up to 15 additional minutes to the overall cooking time. Use medium heat to start the chips smoking, then reduce to low to prevent them from drying out and flaming up.

A high-quality meat thermometer is a very useful tool to have when smoking or slow cooking as they take the guesswork out of determining doneness.

CLEANING YOUR GRILL

STAINLESS STEEL

Your Ferno Grill firebox and tank shroud (Freestanding Model) have been built with the finest grade 304 Stainless Steel available. The frame (Freestanding Model) is made of stainless steel finished in powder coat and all the other parts are aluminum finished in powder coat. These finishes will last for many years, but as with a car, they must be maintained. The following are tips to keep your grill looking and functioning like new for years to come.

After each use, wipe down the exterior of your grill using a soft cloth and a commercially available stainless-steel cleaner. It is important to remove the grease splatters and food debris at this time, rather than allowing it to become 'baked on' over time, as it will become much harder to remove. When trying to remove heavy grease and dirt build-up, a mild mixture of dish soap and warm water can be used.

Do NOT use metallic abrasives (like steel wool) to clean your grill's front surfaces.

Do NOT use ANY abrasives on the front panel, as it will show rub marks.

SPECIAL NOTE FOR LOCATIONS NEAR POOLS AND COASTAL AREAS

The stainless steel material used in the construction of your grill is rust resistant, however, chlorine in the air from swimming pools or the salt from sea air may cause surface rust to appear and even create some pitting if left on the grill. Here are a few tips to avoid this:

1. Regularly wipe down the exterior surfaces with a damp cloth. (Micro fiber cloths such as E-cloth perform very well).
2. Allow the surfaces to dry before installing the cover. Do not cover a damp grill.

3. In extreme environments apply a rust inhibitor. Products that provide a layer of vapor corrosion inhibitors can protect the surface very well.
4. For seasonal storage, use a product referred to above. Ensure that the grill is dry and then cover to minimize the amount of damp air getting to the surfaces.

THE 20-YEAR LIMITED LIFETIME WARRANTY PROVIDES PROTECTION AGAINST RUST-THROUGH OF PARTS THAT RENDER THE PRODUCT INOPERATIVE. IT DOES NOT COVER OCCASIONAL SURFACE RUST OR STAINING DUE TO ENVIRONMENTAL CONDITIONS.



WARNING

It is CRITICAL to keep the drip pan free from food build-up, as, this debris can cause flare-ups and create a FIRE HAZARD. ALWAYS remember to replace the drip pan. DO NOT USE THE GRILL WITHOUT THE DRIP PAN IN PLACE.

Always check the contents of the drip pan after it rains. If the grill is NOT covered, the drip pan will collect water and cause overflow and spillage. Ferno Grills is NOT liable for damage caused by grease overflow.

CUSTOM FERNO GRILLS COVER

The grill cover supplied with your new Ferno Grill is vital to keeping your grill looking new and protecting it from the elements and dust/debris. The cover should be in place over the grill whenever it is not in use. Using the cover is very important when there is a threat of rain. Doing so will prevent the drip pan from over filling with water. An overfill condition can result in a spill below the grill causing a slipping hazard and a significant mess.

CLEANING THE DRIP PAN

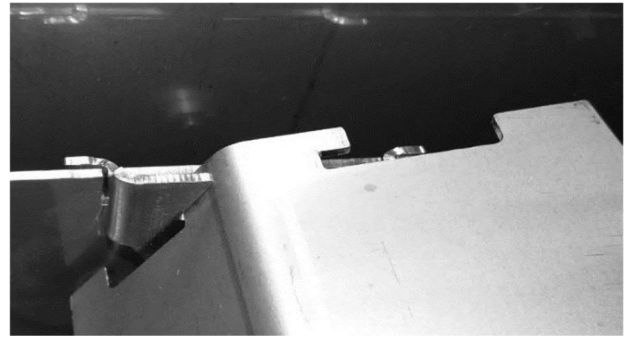


Regular cleaning of the drip pan is **HIGHLY RECOMMENDED**. The drip pan can be removed completely from the grill for easier cleaning. Start by draining any free-flowing grease by tilting the pan over a waste container. Scrape up the food debris with a metal spatula or similar device. Wipe the remaining grease with paper towels, and then finish by using a mild solution of dish soap and a kitchen sponge backed by a Scotch Bright material.

CLEANING THE GRATES

Your Ferno Grill is equipped with cast iron cooking grates. These grates should be treated with care and in a similar manner to a cast iron pan. **DO NOT** burn the grease and debris off using high heat, this will destroy the 'seasoning' on your grates. It is best to clean the grates immediately after each use while the grill is still warm (but not turned on). Wear long oven or BBQ mitt(s) to protect your hand(s) from the heat and use a commercially available grill brush to loosen grease and debris. Dipping the brush in hot water can make it easier to remove the grease. Follow up by wiping the grates with a rag. Periodically you should do a more thorough cleaning by removing the grates and deep cleaning them. They can be placed in a pan of water with dish soap and then scrubbed with a non-metallic medium grit abrasive (like a sponge backed with Scotch Brite material). It is **NOT** recommended to use metallic abrasives (like steel wool) since portions of the steel fibers can remain on the grates and contaminate food.

CLEANING THE RADIANT PLATES



If you are deep cleaning your grates, then it is a good time to clean the radiant plate(s). They are located directly **BELOW** the grates over top of each burner. Tilt the radiant plates at an angle to dislodge the locking tabs and then pull the radiant up and out.

The lower radiant plates are removed by pulling out the cotter pins and lifting upwards. Start by scraping off all heavy debris with a flat object (a wide putty knife or metal spatula work well). Finish by placing the plates in a pan of hot soapy water and clean them with a sponge backed with a Scotch Brite material.

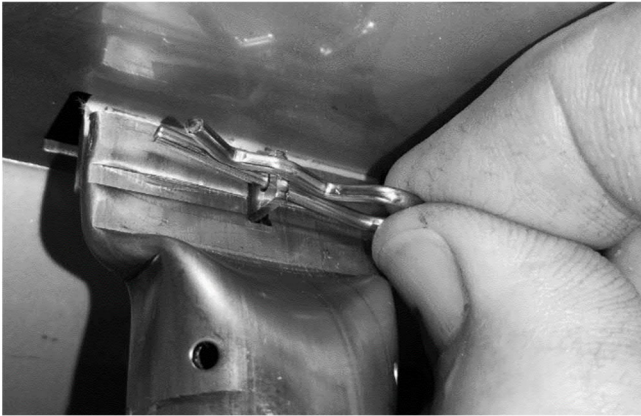
CLEANING THE BURNERS

Once the grates and radiant plates have been removed from the grill (see above), you will have access to the main burners. **MAKE SURE** the grill is cool and that all burner control knobs and main gas supply valves are turned **OFF**.

TO REMOVE THE BURNERS

1. Remove all three grates from the grill.
2. Remove each of the upper radiants by tilting the radiant at an angle to dislodge the locking tabs and then pull the radiant up and out.
3. The lower radiant plates are removed by pulling out the cotter pins and lifting upwards.

4. Pull out cotter pins from both ends of each burner. Remove the RIGHT burner first by lifting slightly up and to the left and then up and out. Follow the same method to remove the CENTER and then LEFT burners.



Inspect all burner ports (holes) ensuring that they are not clogged or do not become clogged during the cleaning process. Clear any clogged ports with a paper clip. DO NOT use a wooden tooth pick as it can break off inside the port.

Finish the cleaning process by tilting the burner upright, with the venturi opening facing down. Shake the burner so that all remaining debris inside falls out from the venturi opening. Be careful not to disrupt or change the air flow setting created by the air shutter and its associated locking screw.

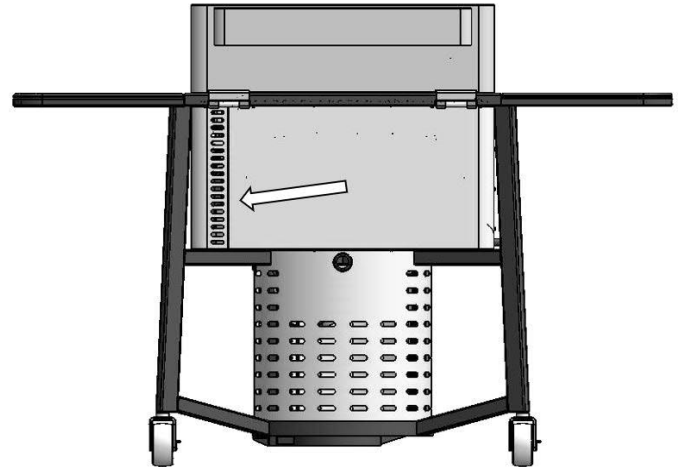


WARNING

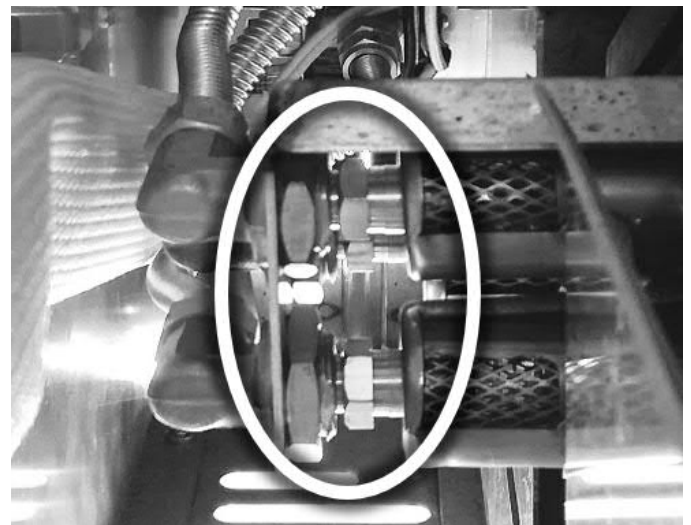
PROPER PLACEMENT OF EACH BURNER IS CRITICAL. AFTER CLEANING THEY MUST BE CENTERED ON THE BRASS ORIFICE, RESTING LEVEL WITHOUT ANY ROCKING. REPLACE THE COTTER PINS TO SECURE THE BURNER. FAILURE TO MEET THESE CONDITIONS MAY CAUSE A VERY DANGEROUS CONDITION THAT CAN CAUSE PERSONAL INJURY AND PROPERTY DAMAGE.

TO RE-INSTALL THE BURNERS

1. Reverse the removing burner instructions as listed above in steps 1-4 but note that the left burner (longest burner) must be installed first, followed by the center burner and finish with the right burner.



2. When installing the burners, verify that the burner inlet (gas inlet opening) sits over the appropriate orifice. This can be done by viewing the burner inlets from the REAR of the grill (Freestanding Model) through the ventilation cutouts.



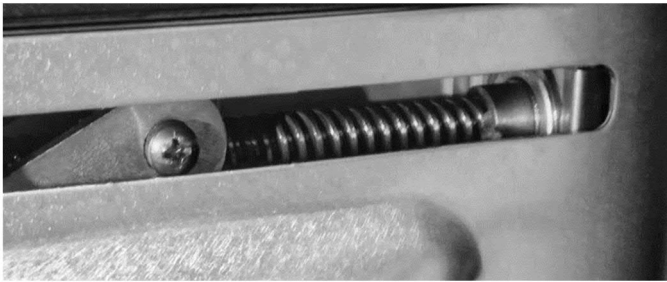
3. Finally, check all the burners for proper operation. Make sure the burner control knobs turn freely and completely through their full range.

LUBRICATING THE CHAIN & JACK SCREW

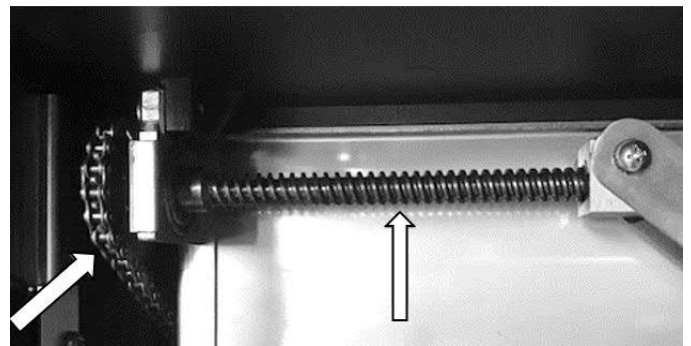
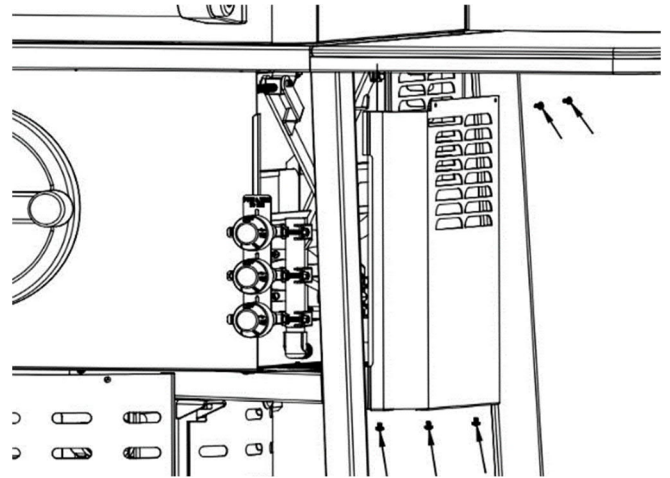
The chain and jack screws that make it possible for the burners to be raised and lowered inside of your Ferno Grill leave the factory with enough lubrication to last for many years. If at some point the grill begins to squeak when raising or lowering the burners then it may be time to consider lubricating the chain and jack screws by following these steps.

Freestanding Model:

1. Remove both side shelf surfaces.
2. Locate the opening on the top front edge on the left side of the grill.

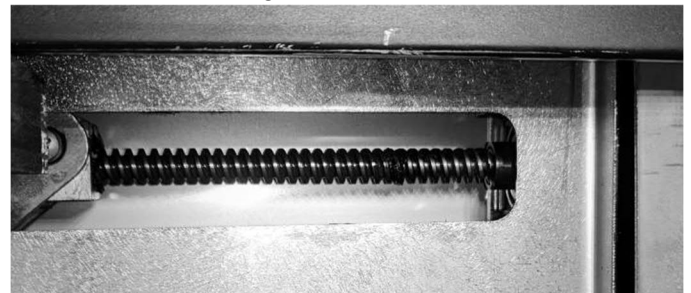


3. Through the opening, you will see the jack screw threads that need to be lubricated.
4. Turn the firewheel counterclockwise until the burner bed is fully lowered.
5. Using grease and a brush, lubricate the entire length of the jack screw.
6. To lubricate the right side, remove the right front quarter panel by first lowering the burners to the lowest position and unscrewing the five (5) screws holding it in place. Gently maneuver it free of the grill.
7. Using grease and a brush, lubricate the entire length of the jack screw and the exposed section of chain.
8. Turn the wheel clockwise in $\frac{1}{2}$ turn increments and on each turn, apply additional lubricant to the newly exposed section of the chain.
9. Once the burner bed is fully raised, apply lubricant to the newly exposed portion of the jack screw.



Built-in Model (EXCESSIVE WEIGHT HAZARD, USE 2 PEOPLE TO PERFORM THE FOLLOWING STEP):

1. Very carefully slide the grill out of the enclosure enough to reveal the lubrication points (NO MORE THAN 6 INCHES).
2. On the left side of the grill, locate the jack screw and lubricate according to the Freestanding Model instructions above.



3. On the right side lubricate the jack screw and chain according to the Freestanding Model instructions above.

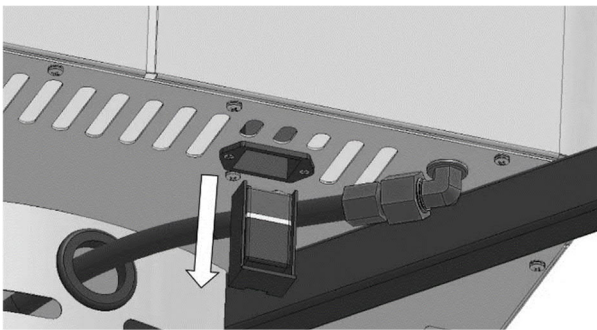
INSTALLATIONS & CONNECTIONS

BATTERY INSTALLATION

The small hardware and accessories box included with your Ferno Grill comes with one (1) 9V battery that provides the power for the electronic ignition system and three (3) C Cell batteries for the integrated LED lights in the handle. To install or replace the batteries, follow these procedures.

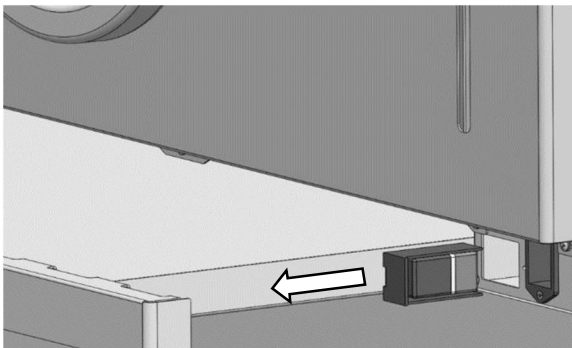
9V BATTERY (FREESTANDING MODEL)

1. Locate the battery compartment under the right side of the firebox, next to the gas line fittings.
2. Insert your fingernail or flat edged tool into the notch located on the side of the battery cartridge nearest the tank shroud, pull towards you and down to release.



3. Remove battery and insert or replace with a new 9V battery in the orientation as depicted on the cartridge.
4. Re-insert cartridge in same orientation as it was removed (it cannot be installed backwards).

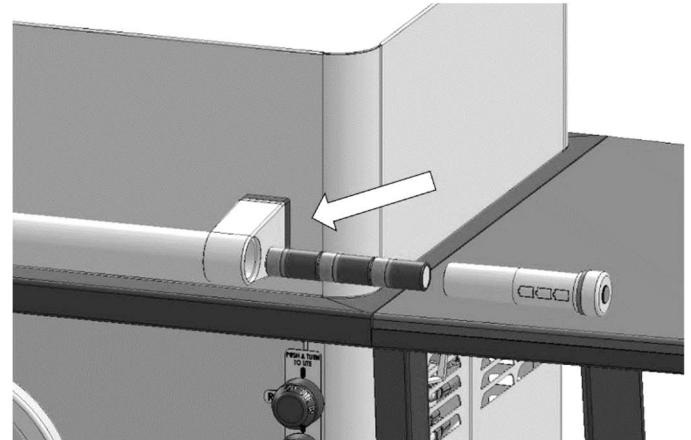
9V BATTERY (BUILT-IN MODEL)



Locate the battery compartment on the lower right side next to the drip tray opening and follow the procedure described above.

C CELL BATTERIES

1. Unscrew battery cap counterclockwise on the right side of the handle (with the black button).
2. Remove the battery cartridge.



3. Remove batteries and insert or replace with 3 new C Cell batteries in the same orientation as depicted on the outside of the cartridge. All batteries must be new and/or fully charged – do not mix new and used batteries or batteries of different types.
4. Insert cartridge back into handle and turn clockwise until snug. Do not overtighten.

The LED lighting in the grill lid occasionally requires a simple cleaning. Inside the grill lid are two LED lights, each covered by a thick piece of glass. To clean grease build up use a Scotch Bright type material with some dish soap and scrub vigorously.

BUILT-IN INSTALLATIONS



WARNING!

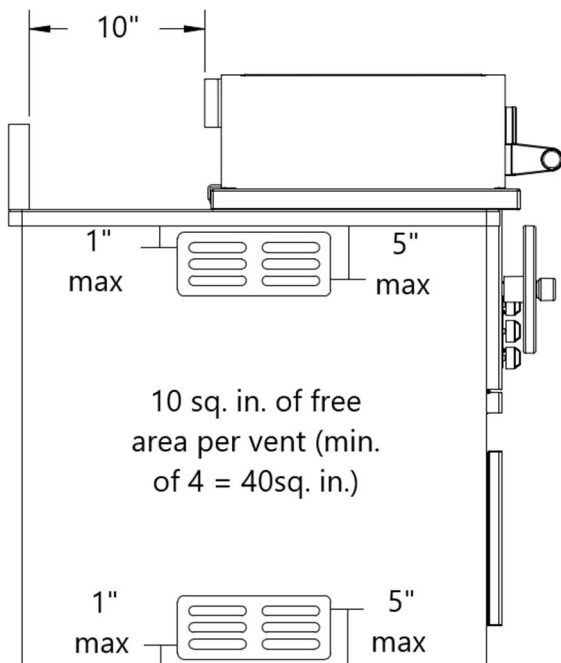
ENCLOSURES BUILT TO HOUSE A FERNO BUILT-IN GRILL MUST BE MANUFACTURED USING ONLY NON-COMBUSTIBLE MATERIALS.

The grill, enclosure, and propane enclosure if any, must be plumbed and vented in accordance with local building and safety codes. FAILURE TO PROPERLY VENT THE ENCLOSURE MAY RESULT IN FIRE.

A leaking gas connection or a burner valve unintentionally left on without properly venting the enclosure may result in a fire or explosion causing property damage, bodily injury, or death.

DO NOT store full or empty spare L.P. cylinders inside the enclosure.

MINIMUM CLEARANCE to adjacent combustible construction is 18" from the back of the grill and 18" from the sides. There must be a minimum of 10" of counter space behind the grill to allow the grill hood to open properly. When choosing a location for the grill, it MUST NOT be located under any overhead combustible construction.



VENTILATION REQUIREMENTS (FOR ALL GAS TYPES: NATURAL GAS, BULK PROPANE, L.P. CYLINDER)

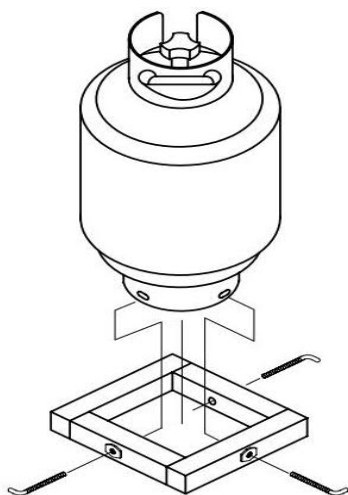
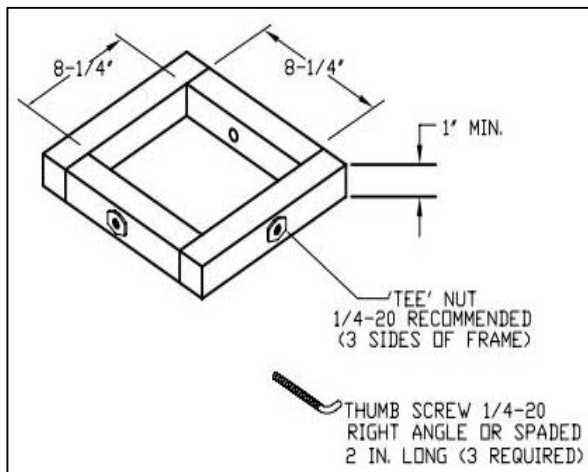
At least four (4) ventilation openings, both upper and lower, MUST be provided on both sides of the enclosure.

THE VENTS THAT ARE INSTALLED MUST MEET ANSI STANDARDS REQUIREMENTS.

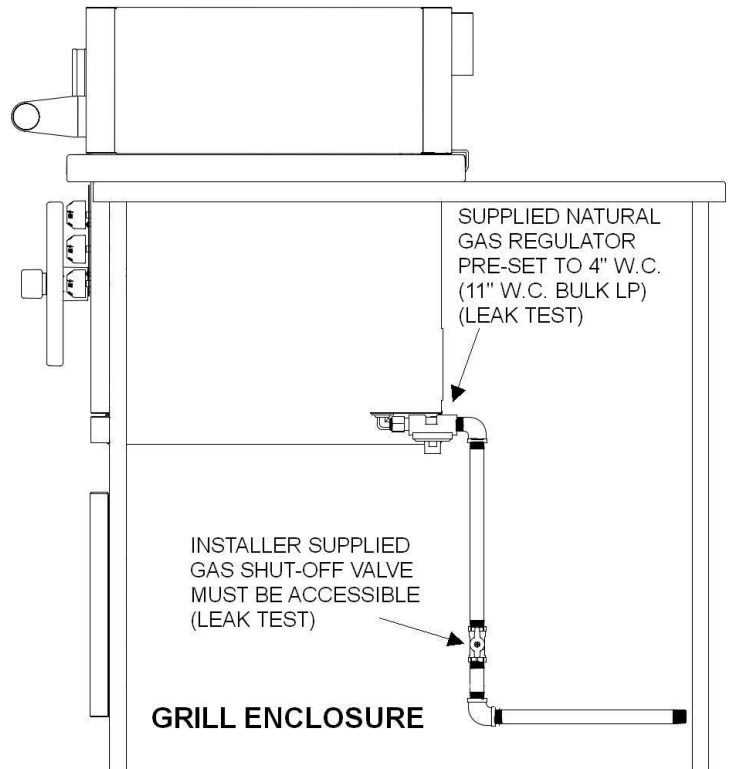
If installing vents in a side and rear wall of the enclosure, they must be spaced at a minimum of 90 degrees. Upper vents must be located within 5 inches from the top of the enclosure to the bottom of the vent. Lower vents must be located within 1 inch from the bottom of the enclosure to the bottom of the first vent openings and no more than 5 inches from the bottom of the enclosure to the top of the vent. All vents must have openings that have a total free area of not less than 10 sq. in. and not less than 40 sq. in. total. Both upper and lower vent openings must have minimum dimensions so as to permit the entrance of a 1/8 inch diameter rod. ALL Vent openings MUST REMAIN COMPLETELY FREE AND OPEN and MUST NOT communicate with other enclosures.

REQUIREMENTS WHEN USING AN L.P. CYLINDER IN THE ENCLOSURE

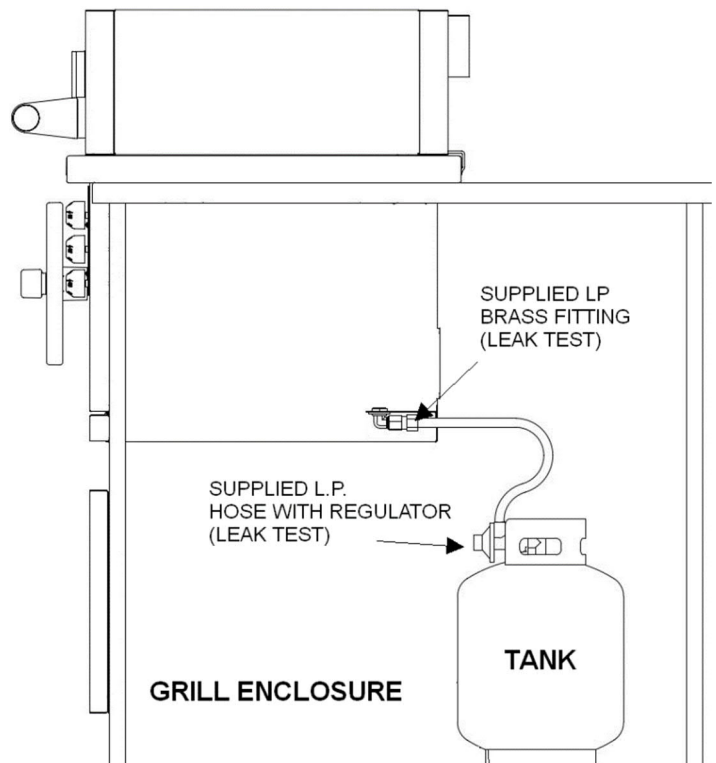
When using a propane tank, an integral means of limiting the movement of the L.P. gas cylinder is required inside of the enclosure. Lateral movement must not exceed 1 inch when installed in the retention device, and the L.P. cylinder must not become dislodged when a lateral force of equal weight to the cylinder is applied from any direction at the center of the highest portion of the cylinder. The retaining device **MUST NOT** interfere with the operation of the L.P. cylinder valve, and there can be no movement that results in strain to rigid tubing or pipe and hose connections, and any hose or tubing must not be installed in a way that results in contact with the body of the grill.



TYPICAL NATURAL GAS & BULK L.P. HOOK-UP



TYPICAL PROPANE HOOK-UP



GAS CONNECTIONS

This grill has been factory pre-set to use either Propane Gas (LP) or Natural Gas (NG). It is critical that the gas you use matches the gas that the grill has been set up for. For the Freestanding Model, you can verify this by checking the rating plate mounted on the outside rear of the tank shroud and the inside rear of the tank shroud. For the Built-in Model, the rating plate is located on the bottom of the Drip Tray and on the lower left side of the grill body.

| | |
|---|--|
| FERNO GRILLS, LLC - GOLETA, CA 93117 | |
| MODEL: SA-3Bxx-xx | SERIAL: FGxx-xxxxx |
| GAS: <input type="checkbox"/> NATURAL, 4" W.C. | <input checked="" type="checkbox"/> LP, 11" W.C. |
| INPUT: <input checked="" type="checkbox"/> MAIN BURNER, 12,000 Btu/Hr | |

MINIMUM CLEARANCE FROM THE SIDES AND BACK OF UNIT TO ADJACENT COMBUSTIBLE CONSTRUCTION BELOW TOP OF UNIT, 12 INCHES FROM SIDE TO BACK. MINIMUM HORIZONTAL CLEARANCE FROM SIDES AND BACK OF UNIT TO ADJACENT VERTICAL COMBUSTIBLE CONSTRUCTION EXTENDING ABOVE TOP OF UNIT, 18 INCHES FROM SIDES AND BACK.

DO NOT LOCATE THIS APPLIANCE UNDER OVERHEAD COMBUSTIBLE SURFACES. FOR OUTDOOR USE ONLY. IF STORED INDOORS, DETACH AND LEAVE CYLINDER OUTDOORS. DO NOT STORE SPARE LP CYLINDERS UNDER OR NEAR THIS UNIT. NEVER FILL EACH CYLINDER BEYOND 80%. NOT FOLLOWING THESE GUIDELINES CAN CAUSE SERIOUS INJURY OR DEATH.

CAUTION: USE ONLY THE GAS PRESSURE REGULATOR SUPPLIED WITH THIS APPLIANCE, WHICH HAS BEEN SET FOR AN OUTLET PRESSURE OF 11" WC (LP)/2.74 kPa AND 4" WC (NG)/1.0 kPa.

CONFORMS TO ANSI STD Z21.58-2018 OUTDOOR COOKING GAS APPLIANCES

ETL US
Intertek
C# 5012273

Ensure that the gas supplied meets minimum pressure requirements, as shown below, under full load:

| Fuel | WC max | WC min |
|------|-----------|-----------|
| NG | 7 inches | 4 inches |
| LP | 14 inches | 11 inches |

WATER COLUMN REQUIREMENTS

Both the regulator and the manifold orifices have been tuned for the type of gas specified on the rating plate. All installation and all installation parts must conform to local codes with the National Electrical Code, ANSI Z223.1/NFPA 70 latest edition and the National Fuel Gas Code, ANSI Z223.1/NFPA 54 in the U.S

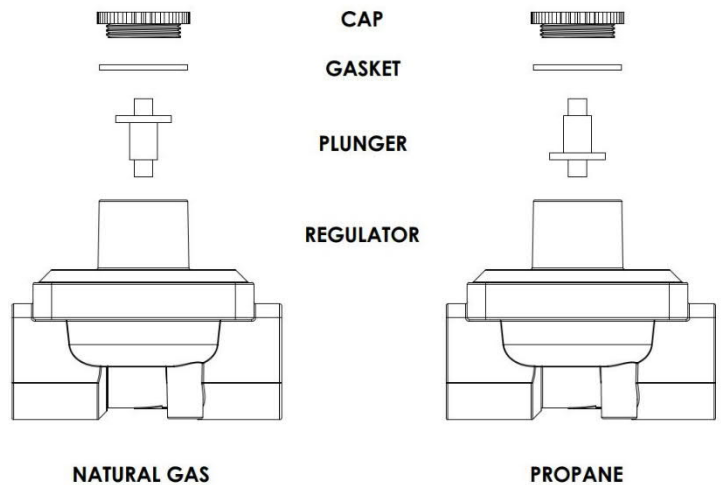
LIQUID PROPANE GAS (LP)

Grills set up for LP gas come equipped with an LP hose/regulator assembly for connection to a standard 20lb LP gas cylinder. All fittings necessary

to attach the hose assembly to the grill are included.

BULK TANK LP

Some residences are permanently plumbed with LP connections, such as those in line with a bulk propane cylinder. When this is the case, then the 4/11 regulator supplied with your grill must be set for the proper gas type (PROPANE). To convert, unscrew the cap on the pressure regulator, then unscrew and flip the plunger. Screw it in and then carefully screw the cap back in and tighten.



LP CYLINDER REQUIREMENTS

The LP cylinder must be constructed and marked in accordance with the specifications for LP cylinders from the US Department of Transportation (DOT) and designed for use with a Type 1 system only. Cylinders in freestanding grills must be seated completely down in the cylinder retention system (tank holder) to avoid accidental movement.

WARNING!

Do NOT change the regulator/hose assembly or use any assembly other than the one supplied with your Ferno Grill.

Do NOT attempt to use a 5LP-A equipped regulator/hose assembly with a standard 510 POL cylinder/valve assembly.

Do NOT store a spare LP gas cylinder under or near this appliance.

NEVER fill the cylinder above 80%.

If the information above is not followed exactly, a fire causing death or serious injury may occur.

When exchanging your cylinder for a refill, exchange only with a Type 1, 20lb. cylinder with an overfill protection device (OPD).


- Never use a cylinder with a damaged valve.
- A dented or rusty LP cylinder may be hazardous and should not be used. If in doubt, have it checked by your LP supplier.
- Always shut off the LP gas when finished using the grill, both at the grill valves and the LP cylinder valve.
- Cylinders must always be stored outdoors in a well-ventilated area and out of reach of children. If your grill is stored indoors, the LP cylinder must be removed and stored outdoors.

LP CONNECTIONS

1. Make sure the LP cylinder valve and all burner valves are fully CLOSED and the grill lid is open before connecting the cylinder to the grill. It is possible for the cylinder valve to be partially open without releasing gas, but, as soon as the regulator is connected, gas can leak from the connection.
2. Insert the regulator inlet into the cylinder valve and turn the black coupler clockwise until the coupler is hand tight. Do not over-tighten this connection.

3. To disconnect the coupler, first make sure the cylinder valve and all burner valves are turned completely OFF. Turn the coupler counter-clockwise. The inlet will then disengage.
4. Always leak test the connection after refilling or exchanging LP gas cylinders. See 'Leak Test Procedure' in section entitled 'Final Checks'

GAS LINE PURGING

1. After refilling or replacing an LP gas cylinder, it is always best to purge the system of air before attempting to light the grill.
2. Make sure all grill controls are in the "OFF" position and the grill lid is open.
3. Slowly turn on the main gas supply.
4. Push in on any knob and confirm the igniters are sparking.
5. Push in the knob for the left burner (farthest from the gas supply) and turn the knob to the 'LIGHT' position indicated by the  icon for approximately 20 seconds to allow the air in the system to purge and the burner to light.
6. Wait at least 5 minutes after shutting off the control knob before attempting to light the burners.

GENERAL SPECIFICATIONS AND GUIDELINES FOR PROPANE CYLINDERS

1. Propane-gas cylinders, valves and hoses must be maintained in good condition and must be replaced if there is visible damage to either the cylinder or valve. If the hose is cut, or shows excessive abrasion or wear, it must be replaced before using the grill.
2. This unit must be used only with a standard 5-gallon (20 lbs.) propane gas cylinder equipped with an OPD (Overflow Protection Device). The OPD has been required on all cylinders sold since October 1, 1998 to prevent overfilling.
3. Cylinder dimensions should be approximately 12" (30.5cm) in diameter and 18" (45.7cm) high. Cylinders must be constructed and marked in accordance with the Specifications for Propane Gas Cylinders of the U.S. Department of Transportation (D.O.T.).
4. The cylinder used must include a collar to protect the cylinder valve, and the cylinder

supply system must be arranged for vapor withdrawal.

5. The pressure regulator and hose assembly supplied with this outdoor gas appliance (LP models only) must be used. Original and replacement pressure regulator and hose assemblies must be those specified by Ferno Grills for connection with a cylinder connecting device identified as Type I by the ANSI Z21.58-2018.
6. The propane-gas cylinder valve must be equipped with a cylinder connection coupling device, described as Type I in the standard definition as defined in paragraph 5 above. This device is commonly described as an Acme thread quick coupler.
7. If the propane-gas cylinder comes with a dust cap, place the dust cap on the cylinder valve outlet whenever the cylinder is not in use.

QUICK COUPLER OPERATION

1. To connect the regulator/hose assembly to the propane-gas cylinder valve fitting, press the hand nut on the regulator over the Acme thread fitting on the cylinder valve. Turn the hand nut clockwise to engage the threads and tighten until snug. Only cylinders marked "propane" can be used.
2. To disconnect turn the hand nut counter clockwise until detached.
3. **IMPORTANT:** Before using the unit, and after each time the cylinder is removed and reattached, check the hose for wear (see paragraph 1) and check all connections for leaks. Turn the grill burner control knobs OFF and open the main cylinder valve, then check connections with soapy water. Repair any leaks before lighting the grill.

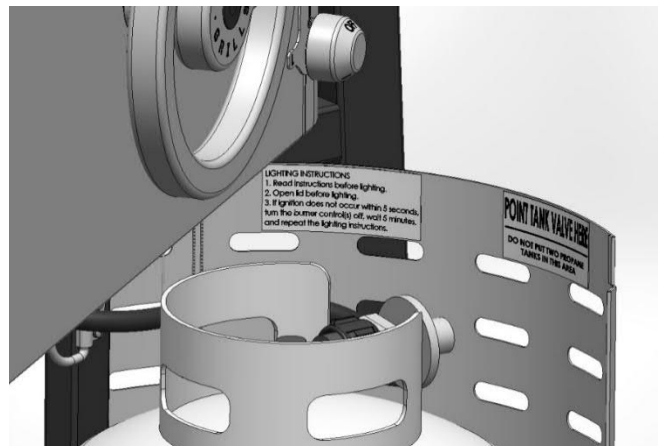


4. **CAUTION:** ALWAYS turn the propane cylinder main valve OFF after each use, and before moving the grill and cylinder or disconnecting the coupling. This valve must remain closed and the cylinder disconnected while the grill is not in use, even though the gas flow is stopped by a safety feature when the coupler is disconnected.
5. **CAREFULLY** inspect the hose assembly each time before the gas is turned on. A cracked or frayed hose must be replaced immediately.
6. If the grill is stored indoors, the cylinder must be disconnected and removed. Disconnected cylinders must be stored outdoors, out of the reach of children, with threaded valve caps tightly installed, and must not be stored in a building, garage, or any other enclosed area.

INSTALLING AND CONNECTING A LP TANK

For the Built-In Model, connections will be the same, only the location of the tank will be different (see 'TYPICAL PROPANE HOOK-UP' on page 21).

1. Open tank door by pulling the handle on the left side of the tank shroud door.
2. Place a single tank on the lower ring that is affixed to the door so that the tank fits inside of the ring.
3. Rotate the tank to where the outlet is facing the warning label stating, "Point Tank Valve Here".
4. Remove any plastic cover from tank outlet.
5. Attached Acme quick thread coupler to tank outlet (as described above).
6. Close tank door and press until latched.



NATURAL GAS

Ferno Grills recommends that only a qualified professional performs the required gas hook-ups on this product.

1. To ensure satisfactory performance, the gas supply line must be sized to accommodate the TOTAL BTU requirements of all the gas fired equipment that will be connected to this line. Minimum pipe size should be 1/2" I.D., however, 3/4" I.D. is recommended for long runs and best performance. For this, a 3/4" FIP x 1/2" MIP reducer fitting will be required (not supplied).
2. Calculate the total BTU output of all appliances that will be attached to this line and use the chart below to determine allowable run line distances. Failure to meet these minimum run requirements will reduce the performance of the grill and any other appliances connected to this line. In general, always keep the supply line run as SHORT as possible. The longer the gas run line, the lower the gas pressure and the smaller number of BTU's the line can handle.

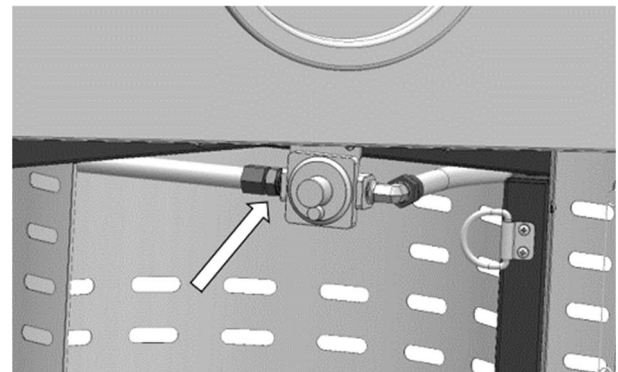
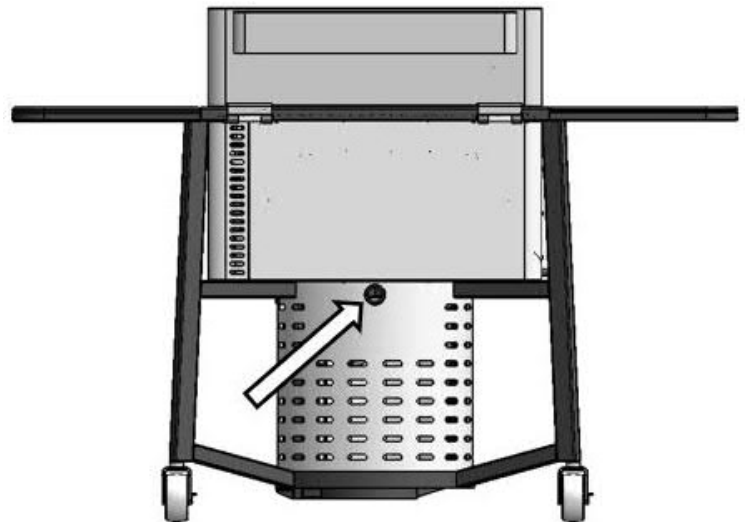
| MAXIMUM GAS RUNS FOR ALL APPLIANCES ON LINE | |
|---|------------------------------------|
| Run Length In Feet 3/4" Pipe | Max BTU for all appliances on line |
| 10 | 360,000 |
| 20 | 245,000 |
| 30 | 198,000 |
| 40 | 169,000 |
| 50 | 150,000 |
| 60 | 135,000 |
| 70 | 123,000 |
| 80 | 115,000 |

3. A gas shut-off valve must be installed in an easily accessible location, between the gas appliances and the gas line. This valve should be installed by a qualified plumber.
4. All pipe joints must be sealed with threading tape or pipe joint compound. The first 2 threads should be free and clear of any

compound to avoid the compound from entering into the pipe. Never use threading compound on flare fittings.

INSTALLING AND CONNECTING NATURAL GAS (FREESTANDING MODEL)

1. To connect your Ferno Grill to Natural Gas, insert the natural gas hose through the grommeted opening in the back of the tank shroud and attach the flared fitting on the hose to the flared fitting on the natural gas regulator.



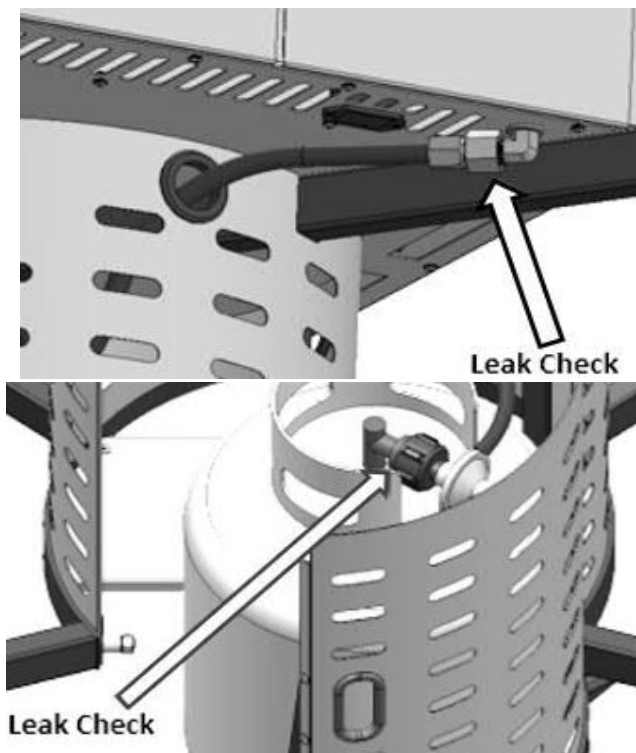
INSTALLING AND CONNECTING NATURAL GAS (BUILT-IN MODEL) please refer to 'TYPICAL NATURAL GAS & BULK L.P. HOOK-UP' on page 21.

FINAL CHECKS

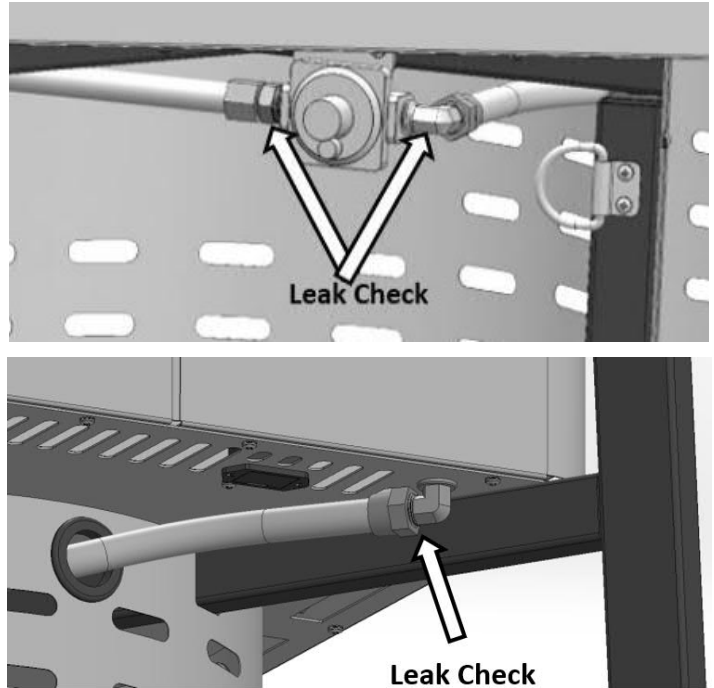
LEAK TEST PROCEDURE

1. Create a soapy solution of 1 part dish soap and 3 parts water.
2. Confirm that all valve control knobs are in the 'OFF' position.
3. Turn on the fuel supply. For Natural Gas, turn the valve handle 1/4 turn so the handle is in line with the pipe and gas flow. For LP, turn the valve knob one complete turn in the counter-clockwise direction.
4. Apply the soap solution generously with a rag, paint brush or squirt bottle on every connection and fitting.
5. If bubbles appear to 'grow' on any of the connections, then gas is escaping. Turn OFF the gas supply immediately.

Locations to Leak Check (Freestanding Model)



Locations to Leak Check – Natural Gas Setup (Freestanding Model)



FIXING A GAS LEAK:

1. Make sure the main gas supply has been turned off.
2. Turn 'ON' all valve control knobs to purge the system of any gas build-up, then turn all valve control knobs 'OFF'.
3. Wash off the soapy solution and then dry off.
4. Tighten the loose joint or replace any fitting that may be suspect.
5. If the leak is at the main cylinder valve for LP applications, do not attempt to repair it. The LP cylinder needs to be replaced.
6. Repeat the leak test procedure to confirm that no leaks are present.

See 'TYPICAL NATURAL GAS & BULK L.P. HOOK-UP & TYPICAL PROPANE HOOK-UP' on page 21 for leak check locations on the Built-in Model.

LOW HEAT BURNER ADJUSTMENT

The burners on your grill feature an adjustable 'LOW' setting. Fluctuations in gas pressure, gas conversions, or the quality of the gas itself can affect burner performance at the 'LOW' setting. It may be too high, or it may be too low.

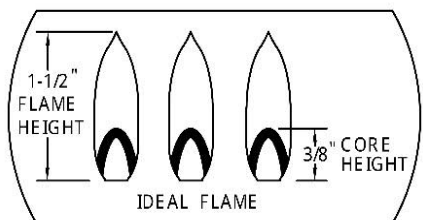
TO ADJUST BURNER 'LOW' SETTING:

1. Make sure that the grill is cool.
2. Remove the grates and the radiants covering each burner so that the burner flames can be seen during adjustment.
3. Light the desired burner and set it to 'LOW'. The knob position will be all the way in the counter-clockwise direction.
4. Pull off the valve control knob by pulling away from the grill.
5. Hold the valve shaft with pliers and insert a small flat screwdriver into the valve shaft. At the bottom of the valve shaft is the adjustment screw. Turn this screw to adjust flame height, clockwise to decrease or counter-clockwise to increase, while looking at the burner flame, until the flame is at its lowest stable setting.



BURNER FLAME-AIR SHUTTER ADJUSTMENT

Air flow that enters the burner is controlled by the 'Air Shutter'. Each burner is installed, adjusted, and tested at the factory prior to shipment, however, fluctuations in gas pressure, gas conversions, and gas quality can affect performance of the burner. If this is the case, it may be necessary to adjust the flame height of the burner.



Flames should be blue in color and stable, with a slight yellow tip. The bright blue core should be around 3/8" tall with a total flame height of around 1-1/2". The flames should burn quietly and not appear to 'lift' off of the burner. If your flames do not match this description, use the following procedure.



DANGER!

BE EXTREMELY CAREFUL AROUND HOT
BURNERS AND ADJACENT GRILL PARTS!

To Adjust:

1. Remove the grates and both the upper and lower radiants. Remove a burner per the instructions in the section entitled 'CLEANING YOUR GRILL' (gloves recommended).
2. Loosen the set screw found on the air shutter. Adjust the air shutter and then re-tighten screw. Reverse order above for re-installation.



3. If the flame is too YELLOW, turn the shutter counter-clockwise to OPEN UP the shutter to allow more air flow. See also 'Yellow Burner Flames' in the section entitled 'TROUBLESHOOTING GUIDE' (see next section). If the flame is noisy (sounds like a torch) and tends to 'lift' off of the the burner, turn the shutter clockwise to CLOSE the shutter and reduce the air flow.

TROUBLESHOOTING GUIDE

BEFORE YOU CONTACT FERNO CUSTOMER CARE

Please check the following:

1. Is there fuel supplied to the grill?
2. Is the main shut-off valve open?
3. Is your propane cylinder empty? Have you recently refilled the propane cylinder? If so, is the connection tight?
4. Has the 9V battery for the spark generator been replaced recently? Is the ignition operating properly, i.e., do you hear clicking when the burner control knobs on the right front are pushed in? See also the following section entitled 'GRILL DOESN'T LIGHT' for instructions on replacing the battery.
5. For Liquid Propane Gas (LP) - is the tank valve knob turned at least one complete turn in the COUNTERCLOCKWISE direction?
6. Is the correct type of fuel being supplied? The type of fuel your grill was built for (NG or LP) can be found on the rating label on the rear of the tank shroud or on the interior rear of the tank shroud.

If you've checked the above items, review the troubleshooting list below before calling for service.

THE LIGHTS WON'T ILLUMINATE

1. Check Batteries - ensure that the battery cartridge located in the handle has a fresh supply of C Cell batteries and all are in the correct orientation.
2. Replace the LED – this component is not a user serviceable part so please contact Ferno Grills Customer Care at 888-800-1688.

GRILL DOESN'T LIGHT

Check the Igniters. Your grill uses an electric ignition system that creates a spark when a burner control knob is pushed in. **MAKE SURE** that all burner control knobs are set to 'OFF' before proceeding.

Remove the two main grates.

1. Watch and listen to all three igniters that are located at the front of each burner as you push in and hold each burner control knob. When pushing in, be sure to keep the knob in the 'OFF' position.
2. Listen for a rapid clicking sound when the control knob is pushed in. You should also see an electrical spark jump between all the ignition electrodes.
3. If no clicking is heard and no spark is visible, replace the 9-volt battery (see section entitled 'Battery Installation'). If the power is OK, ensure that there is a proper gap of approximately 1/8" between the electrodes.
4. Check the remaining igniters. If igniters don't spark, proceed with troubleshooting or match-light the burner.
5. If the igniters are working check to see if gas is reaching the burners by attempting to match light a burner.
6. If the burner fails to light, **WAIT 5 MINUTES BEFORE ATTEMPTING TO RE-LIGHT!** See section entitled 'LIGHTING YOUR GRILL' for further details.
7. Re-check fuel connections for leaks and ensure the gas supply is of the correct type and is of adequate pressure. See 'Leak Test Procedure' in section entitled 'FINAL CHECKS' for further details.
8. If the burner will not match light and you know that the burners are getting gas, **WAIT 5 MINUTES** for any gas to dissipate and remove the burner and check it for blockages. See 'Cleaning the Burners' in the section entitled 'CLEANING YOUR GRILL' for further details.

If the burner will light with a match, then the igniter may not be functioning correctly. Please Contact Ferno Customer Care.

SMELL OF GAS WHILE COOKING



WARNING!

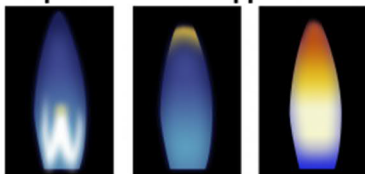
IF YOU SMELL GAS WHILE THE GRILL IS OPERATING, IMMEDIATELY TURN OFF ALL BURNERS AND SHUT OFF THE MAIN FUEL SUPPLY.

1. Perform a leak test. See 'Leak Test Procedure' in previous section entitled 'FINAL CHECKS' for further details.
2. Check for blockages. See 'Cleaning the Burners' in the section entitled 'CLEANING YOUR GRILL' for further details.

YELLOW FLAMES

Under normal conditions the flames should be blue with slight yellow tips. See 'Burner Flame-Air Shutter Adjustment' in section entitled 'FINAL CHECKS'. A yellow flame indicates a lack of fresh air. Note that as the grill becomes dirty, a yellow tip may appear at the tip of a blue flame. This is normal. A full yellow flame can be adjusted by opening the air shutter found on the front intake next to the venturi of each burner. Please follow the burner removal instructions found in 'Cleaning the Burners' in the section entitled 'CLEANING YOUR GRILL' for further details. With the burner in your hand, face the venturi and air shutter toward you. The air shutter has been factory tested and set so the air shutter is opened at 70%.

Proper Gas Flame Appearance

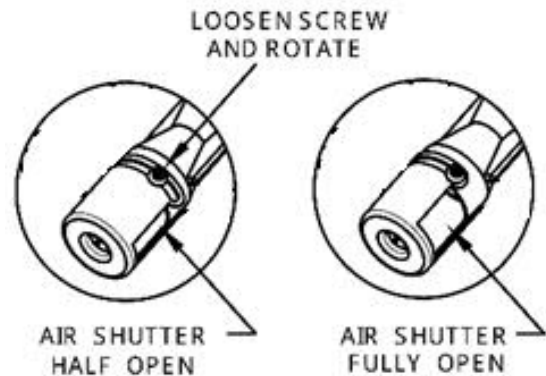


- A** - Natural Gas
B - Liquid Propane
C - Needs Attention

ADJUST THE AIR SHUTTER

1. To adjust for insufficient air, adjust the air shutter by loosening the screw and rotate the air shutter so that it is FULLY open as shown in the picture below. Re-tighten the screw and use this as a starting point. Re-insert the burner and test. If the flames are BLUE but are noisy

and appear to 'lift' off the burner, then repeat the process and modify your shutter adjustment until the flames are blue, stable, and quiet.



LOW OR INSUFFICIENT HEAT



WARNING!

NO PART OF THE GRILL SHOULD EVER BE LINED WITH ALUMINUM FOIL. Doing so will interfere with airflow and can cause a low heat condition, carbon monoxide poisoning, and can trap heat causing a fire hazard.

1. Ensure that you have preheated the grill with all burners ON for at least 10 minutes with the lid closed.
2. Proper leveling during installation is critical. A grill that is not level will cause erratic burner combustion and inefficient, uneven heating. A carpenter's spirit level should be used to level the grill both front-to-back and side-to-side.

IF LOW HEAT PROBLEM PERSISTS

1. Check the gas supply line sizing requirements.
2. Check the gas supply line for kinks or damage.
3. Replace any damaged supply lines.
4. Check the regulator.
5. Make sure that the regulator & hose assembly is the one designed for and supplied with your grill and that it is correctly set up for the type of fuel you are using.
6. The hose and regulator provided by the manufacturer must be used if your grill is set-up for an LP Gas Cylinder.
7. Check that there is no physical pressure being applied to the regulator attached to the LP

tank. The regulator contains a flexible diaphragm and should not be allowed to touch the grill body or its surroundings.

8. Ensure that the burners and drip tray are clean and free from obstructions.

LP (PROPANE) UNITS

- Is the cylinder almost empty? Almost-empty cylinders may not have sufficient pressure to run the burners at high heat. Have the line pressure checked by a qualified technician.
- Flow Limiting Device - improper lighting procedures may have activated the LP cylinder's flow control device, reducing the heat output. These are a built-in safety check valve that prevents the fuel from being supplied (or may reduce the gas flow). The check valve is there to detect hazardous leaks in the system. If there is a leak, the drop in pressure is detected, and the tank goes into check, which restricts or stops the gas flow. This will make the cylinder appear to be empty. See below on how to reset the flow control device valve.

TO RESET THE FLOW CONTROL

1. Shut OFF all burner control knobs and close the valve on the LP cylinder.
2. Wait 30 seconds and then very slowly, reopen the cylinder valve.
3. Wait a few seconds and re-light a burner.

BULK LP TANK USERS

Bulk LP cylinder lines must be properly regulated. Ensure that you are using a 4/11 appliance regulator converted to LP gas. Also ensure that you do not have more than one regulator in-line.

NATURAL GAS UNITS

1. Make sure that the supply line is at least 3/4" ID (inside diameter) or 1" OD (outside diameter).
2. Check line pressure, natural gas inlet pressure should be at least 5" W.C. and manifold pressure not less than 4" W.C. under full load (with all burners on).
3. Check burners for blockages.
4. Check flame characteristics.
5. Clean or adjust air shutter. See 'Adjust the Air Shutter' in the section entitled 'TROUBLESHOOTING GUIDE'.

BURNER GOES OUT

1. First determine if the location of your grill is causing the problem.
2. If the grill is subject to high winds, reposition it to provide some protection.
3. Check the gas supply and flame characteristics. See 'Adjust the Air Shutter' in the section entitled 'TROUBLESHOOTING GUIDE'.
4. Check to ensure that the burners are correctly positioned in the grill. See 'Cleaning the Burners' in the section entitled 'CLEANING YOUR GRILL' for further details.

BURNER GOES OUT ONLY WHEN SET TO "LOW"

The burner valves on the grill feature an adjustable low setting. Fluctuations in gas pressure, gas conversion and even in the quality of the gas itself may affect burner performance at the LOW setting. It could be either too high or too low. Please see 'Low Heat Burner Adjustment' in section entitled 'FINAL CHECKS' for further information.

IF YOUR GRILL DOES NOT LIGHT IN 4 TO 5 SECONDS, you may need to purge the line. See 'Gas Line Purging' in section entitled 'GAS CONNECTIONS' for further details

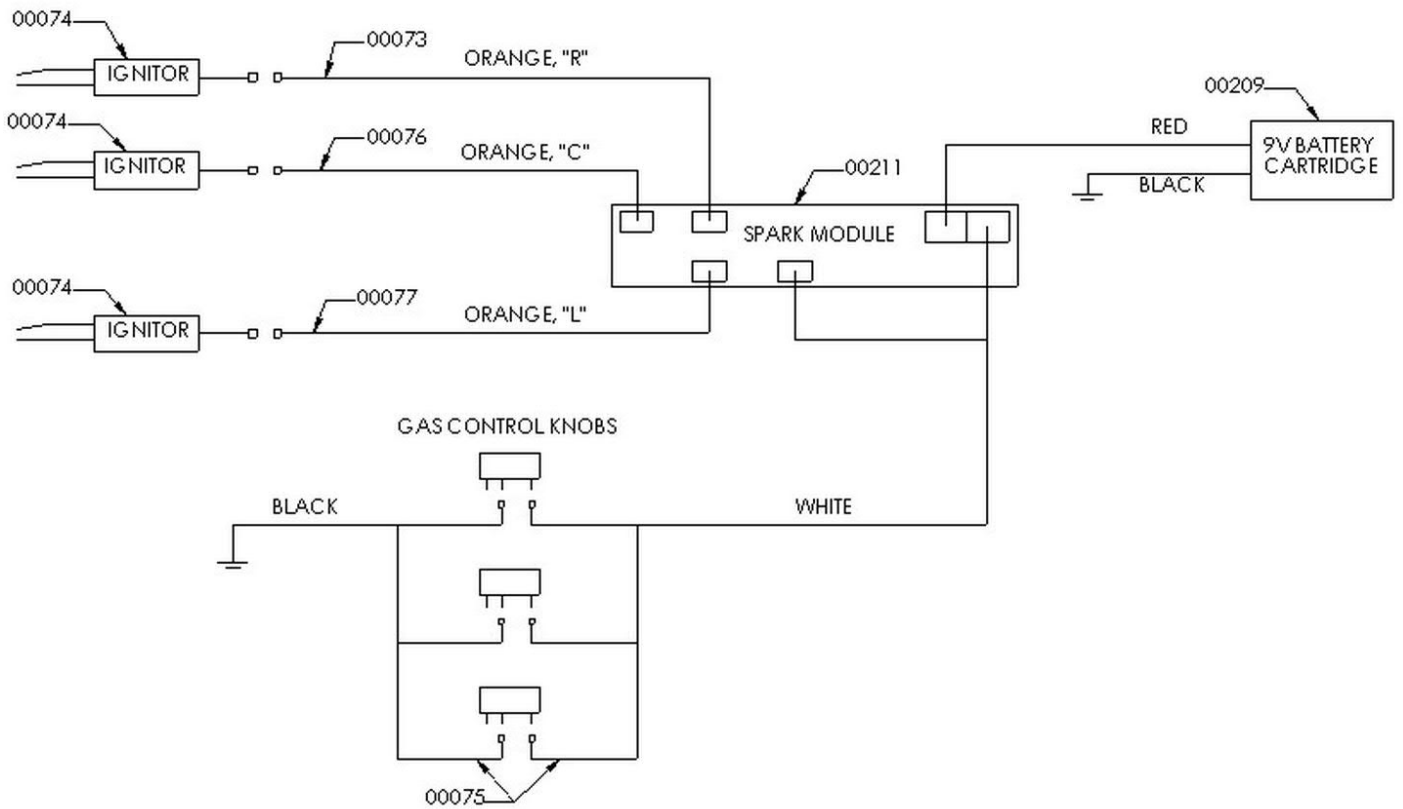
TROUBLESHOOTING QUICK REFERENCE GUIDE

In most cases, these troubleshooting tips can be performed by the grill owner. Please read and follow the steps carefully. If you have exhausted the troubleshooting steps, OR if you are not comfortable working on your grill, please contact the Ferno Customer Care Team: Tel: 888-800-1688 Email: info@fernogrills.com

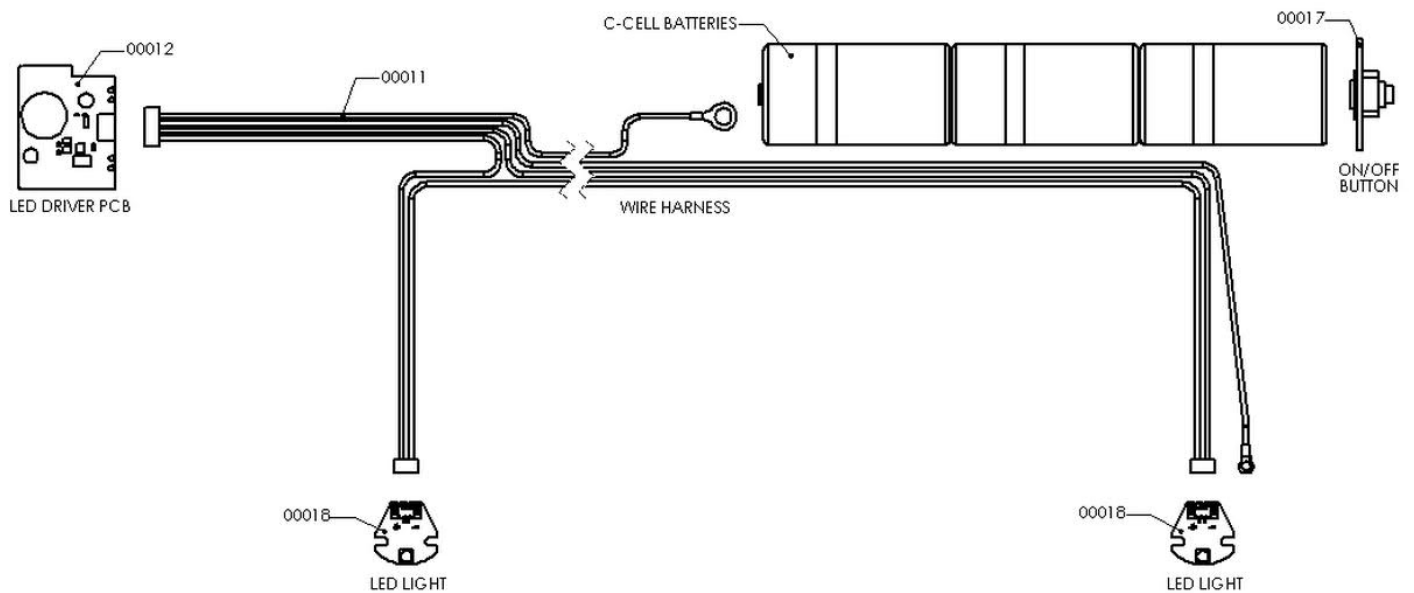
| PROBLEM | POSSIBLE CAUSE | CORRECTION |
|---|--|--|
| No ignitor clicks | <ol style="list-style-type: none"> 1. 9V battery depleted 2. Igniter switch malfunction on valve 3. Switch to spark module wiring disconnected | <ol style="list-style-type: none"> 1. Replace with fresh 9V battery 2. Clean burner ports 3. Re-connect wiring to spark module or switch |
| Failure to ignite (ignitors click) | <ol style="list-style-type: none"> 1. Electrode prongs misaligned 2. Improper air shutter adjustment 3. Ignitor wire disconnected 4. Burners not seated properly 5. Low gas pressure 6. Ignitor wire grounded to chassis | <ol style="list-style-type: none"> 1. Re-align prongs to 1/8" gap 2. Adjust air shutters. 3. Plug wires back into spark module 4. Re-seat burners 5. Have the Gas Co. check pressure at unit/install full propane tank 6. Contact the Ferno Customer Care Team |
| Ignitors click and continue to spark after gas knob is released | <ol style="list-style-type: none"> 1. Gas valve rubbing on front skin components | <ol style="list-style-type: none"> 1. Contact the Ferno Customer Care Team |
| Insufficient heat / low flame | <ol style="list-style-type: none"> 1. Improper air shutter adjustment 2. Using propane orifice for natural gas 3. Low gas pressure/flame (propane) 4. Low gas pressure/flame (natural) 5. LP regulator hose cracked due to age | <ol style="list-style-type: none"> 1. Adjust air shutters 2. Check/change orifices 3. Shut off all valves, including propane tank, and follow lighting instructions exactly 4. Have the Gas Co. check pressure at unit 5. Replace LP regulator hose |
| Uneven heating | <ol style="list-style-type: none"> 1. Burner ports partially blocked by debris 2. Small spiders or insects in burner 3. Improper air shutter adjustment | <ol style="list-style-type: none"> 1. Remove burners and clean out ports 2. Inspect burners and orifices for spider webs or other debris that may block flow 3. Adjust air shutter |
| Thermometer not operating properly | <ol style="list-style-type: none"> 1. Thermometer malfunction | <ol style="list-style-type: none"> 1. Contact the Ferno Customer Care Team |
| Handle light(s) not operating | <ol style="list-style-type: none"> 1. C-cell batteries depleted or installed incorrectly 2. LED emitters failed 3. LED driver circuit board failed 4. Loose/corroded connections | <ol style="list-style-type: none"> 1. Replace with three fresh C Cell batteries in correct orientation 2. Contact the Ferno Customer Care Team 3. Contact the Ferno Customer Care Team 4. Contact the Ferno Customer Care Team |
| Handwheel motion not smooth | <ol style="list-style-type: none"> 1. Chain links sticking/dry 2. Side screws sticking/dry 3. Other driveline components binding | <ol style="list-style-type: none"> 1. Lubricate the chain 2. Lubricate side screws 3. Contact the Ferno Customer Care Team |
| Burner bed not sitting flat | <ol style="list-style-type: none"> 1. Side screws out of alignment with each other | <ol style="list-style-type: none"> 1. Contact the Ferno Customer Care Team |
| Loss in full range of handwheel motion | <ol style="list-style-type: none"> 1. The main drive gear out of alignment with side screws | <ol style="list-style-type: none"> 1. Contact the Ferno Customer Care Team |

GRILL WIRING DIAGRAMS

Ignition Wiring

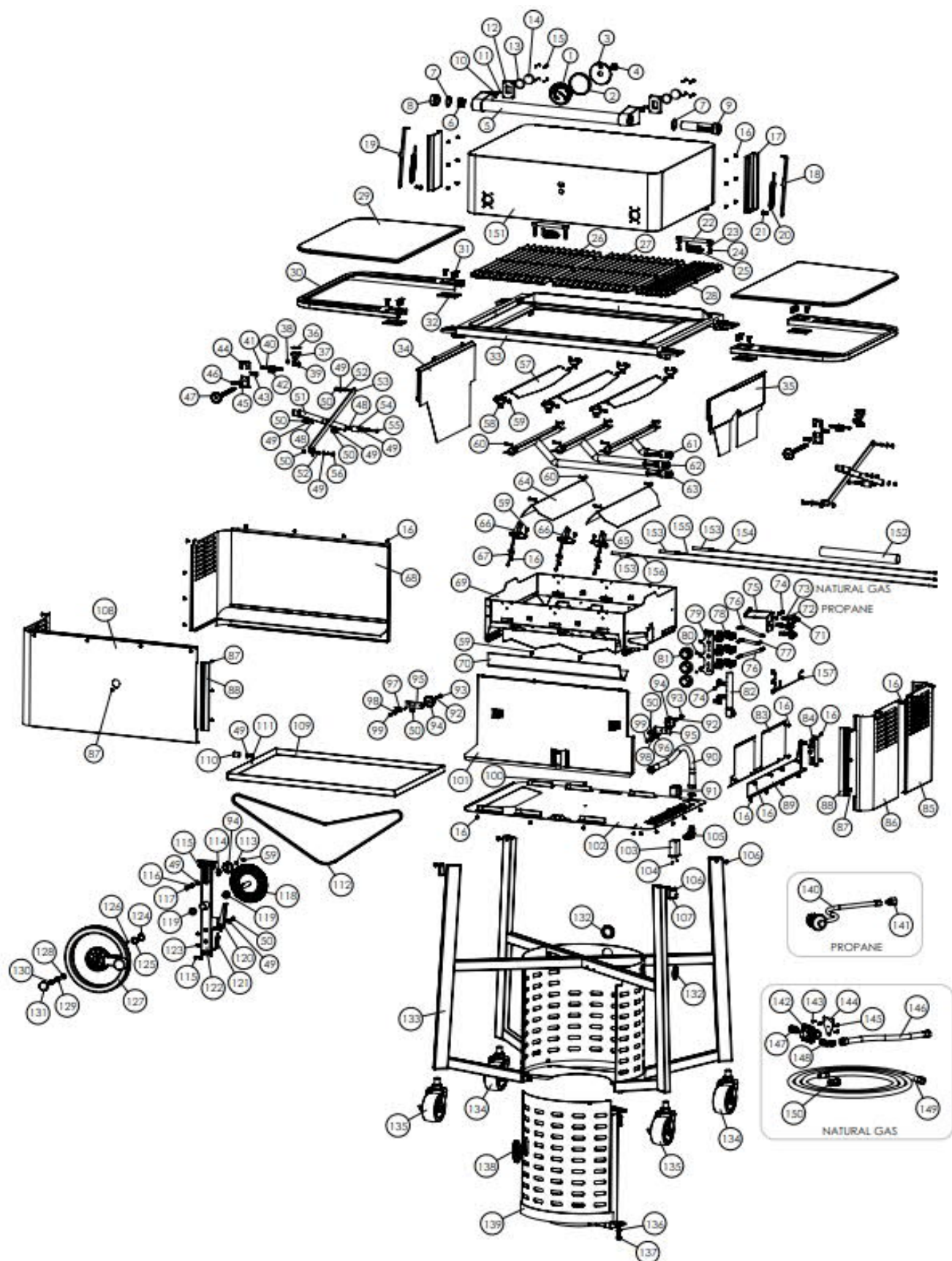


Handle Wiring



EXPLODED VIEW AND REPLACEMENT PARTS LIST

(FREESTANDING MODEL)



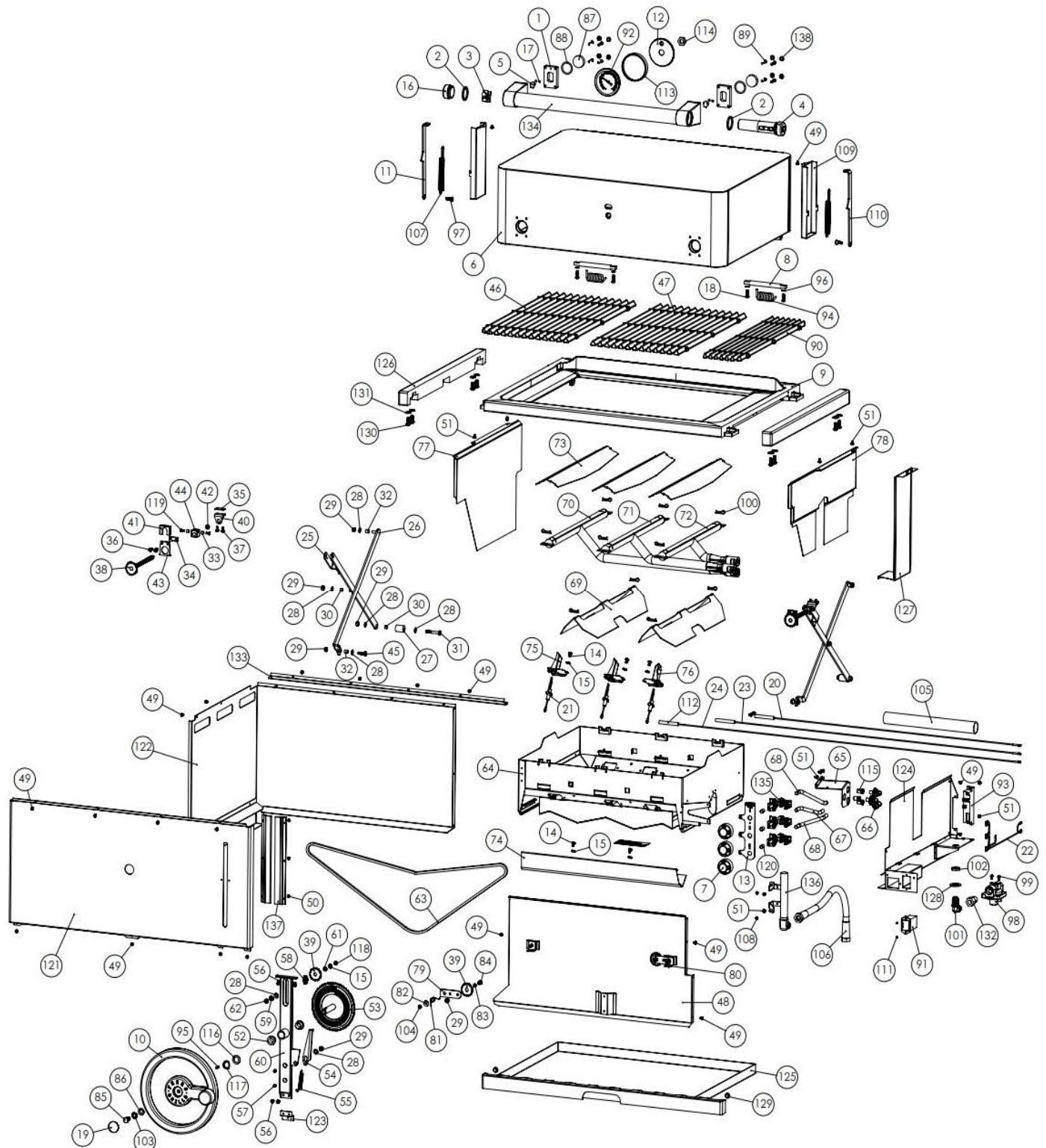
| Key | Item Description | FG Part Number | Quantity |
|-----|--|----------------|----------|
| 1 | THERMOMETER | 210 | 1 |
| 2 | THERMOMETER BEZEL | 310 | 1 |
| 3 | THERMOMETER BEZEL GASKET | 46 | 1 |
| 4 | THERMOMETER NUT | 317 | 1 |
| 5 | HANDLE ASSEMBLY (KEY) | KA-1 | 1 |
| 6 | LED Driver PCB | 12 | 1 |
| 7 | O-RING, BATTERY END CAP | 9 | 2 |
| 8 | HANDLE END CAP | 58 | 1 |
| 9 | BATTERY CARTRIDGE ASSEMBLY | 13 | 1 |
| 10 | LED LIGHT | 18 | 2 |
| 11 | 2-56 x .188, Phillips Pan Head, Stainless Steel | 59 | 5 |
| 12 | HANDLE GASKET | 7 | 2 |
| 13 | O-RING (-217, SILICONE) | 206 | 2 |
| 14 | GLASS DISC | 205 | 2 |
| 15 | Screw, 8-32 x 1.375, Phillips Pan, 18-8 Stainless Steel | 207 | 8 |
| 16 | Screw, 8-32 x .250, Phillips Pan, External Tooth Lock Washer, Stainless Steel | 129 | 46 |
| 17 | COVER, LID SPRING | 292 | 2 |
| 18 | HINGE STOP BAR, RIGHT | 299 | 1 |
| 19 | HINGE STOP BAR, LEFT | 44 | 1 |
| 20 | SPRING, INTERNAL LID | 289 | 2 |
| 21 | SCREW, HINGE STOP | 219 | 2 |
| 22 | HINGE PIN, LID | 35 | 2 |
| 23 | Washer, .25 x .478 x .025, Internal Tooth Lock, Stainless Steel | 218 | 4 |
| 24 | .25-20 x .75, Button Head, Stainless Steel | 61 | 4 |
| 25 | SPRING, LID | 212 | 2 |
| 26 | GRATE, LEFT | 107 | 1 |
| 27 | GRATE, CENTER | 108 | 1 |
| 28 | GRATE, RIGHT | 208 | 1 |
| 29 | EAR SURFACE | 39 | 2 |
| 30 | EAR FRAME | 38 | 2 |
| 31 | 5/16-18 x 3/4, 82deg flat head screw, Stainless Steel | 257 | 12 |
| 32 | INSULATOR, EARS | 40 | 4 |
| 33 | TOP PLATE | 37 | 1 |
| 34 | HEAT SHIELD ASSEMBLY, LEFT | 186 | 1 |
| 35 | HEAT SHIELD ASSEMBLY, RIGHT | 190 | 1 |
| 36 | INSULATOR, MIDDLE BRACKET | 92 | 2 |
| 37 | BRACKET, SIDE SCREW, MIDDLE | 101 | 1 |
| 38 | Bushing, Flanged, .250 x .375 x .250 | 103 | 1 |
| 39 | Screw, 10-32 x .440, Phillips Pan, External Tooth Lock Washer, Stainless Steel | 94 | 4 |
| 40 | Bushing, .189 x .312 x .25, Bronze 841 | 89 | 4 |
| 41 | Screw, 8-32 x .375, Phillips Pan, Stainless Steel | 90 | 4 |
| 42 | ACME NUT, SIDE SCREW | 105 | 1 |
| 43 | INSULATOR, BEARING PLATE | 91 | 2 |
| 44 | CLIP, BEARING | 102 | 1 |
| 45 | BRACKET, SIDE SCREW, FRONT | 104 | 1 |
| 46 | Screw, 10-32 x .625, Phillips Pan, External Tooth Lock Washer, Stainless Steel | 93 | 4 |
| 47 | SIDE SCREW GEAR ASSEMBLY | 96 | 1 |
| 48 | Bushing, .25 x .375 x .25 | 86 | 4 |
| 49 | Washer, .25 x .625 x .05, Stainless Steel | 84 | 1 |
| 50 | Nut, Stover, .25-20, Stainless Steel | 85 | 8 |
| 51 | SCISSOR LEG WELDMENT | 79 | 2 |
| 52 | Bushing, .25 x .375 x .375, Bronze PTFE Oil | 88 | 4 |
| 53 | SCISSOR LEG 2 | 82 | 2 |
| 54 | SPACER, PIVOT | 83 | 2 |
| 55 | Screw, .25-20 x 1.75, Hex Head, Stainless Steel | 87 | 2 |
| 56 | Screw, .250-20 x .875, Hex Head, Stainless Steel | 106 | 2 |
| 57 | UPPER RADIENT | 177 | 3 |
| 58 | RADIENT MOUNT | 179 | 6 |
| 59 | Screw, 12-24 x .375, Phillips Pan, External Tooth Lock Washer, 18-8 SS | 319 | 11 |
| 60 | Cotter Pin | 273 | 10 |
| 61 | BURNER, RIGHT | 176 | 1 |
| 62 | BURNER, CENTER | 175 | 1 |
| 63 | BURNER, LEFT | 174 | 1 |
| 64 | LOWER RADIENT | 173 | 2 |
| 65 | IGNITER HOLDER WELDMENT 2 | 181 | 1 |
| 66 | IGNITER HOLDER WELDMENT 1 | 180 | 2 |
| 67 | Electrode | 74 | 3 |

| | | | |
|-----|--|------|---|
| 68 | SKIN, REAR ASSEMBLY | 117 | 1 |
| 69 | BURNER BED FRAME | 161 | 1 |
| 70 | ELECTRODE COVER | 178 | 1 |
| 71 | ORIFICE HOLDER | 168 | 3 |
| 72 | ORIFICE, #59 | 318 | 3 |
| 73 | ORIFICE, #52 | 330 | 3 |
| 74 | Screw, 8-32 x .312, Phillips Pan, External Tooth Lock Washer, Stainless Steel | 137 | 4 |
| 75 | ORIFICE BRACKET | 167 | 1 |
| 76 | GAS DISTRIBUTION LINE, 9IN | 170 | 2 |
| 77 | GAS DISTRIBUTION LINE, 8IN | 171 | 1 |
| 78 | GAS VALVE ASSEMBLY (KEY) | KA-2 | 1 |
| 79 | POINTER, GAS KNOBS | 53 | 1 |
| 80 | Screw, 6-32 x .250, Phillips Pan, External Tooth Lock Washer, 18-8 SS | 291 | 2 |
| 81 | GAS KNOB WITH INSERT | 34 | 3 |
| 82 | MANIFOLD ASSEMBLY (KEY) | KA-3 | 1 |
| 83 | HEAT SHIELD | 128 | 1 |
| 84 | SPARK MODULE | 211 | 1 |
| 85 | SKIN, RIGHT REAR | 115 | 1 |
| 86 | SKIN, RIGHT FRONT ASSEMBLY | 112 | 1 |
| 87 | Screw, 6-32 x .188, Phillips Pan, External Tooth Lock Washer, Stainless Steel | 131 | 6 |
| 88 | BRUSH ASSEMBLY (KEY) | KA-4 | 1 |
| 89 | FLOOR BRACKET | 130 | 1 |
| 90 | HOSE, INTERNAL | 287 | 1 |
| 91 | BATTERY COVER | 69 | 1 |
| 92 | BUSHING, TOP IDLER | 201 | 2 |
| 93 | Screw, .250-20 x .500, Hex Head, Stainless Steel | 202 | 2 |
| 94 | SPROCKET, 18T | 98 | 5 |
| 95 | TENSIONER ARM | 197 | 2 |
| 96 | SPRING, TENSIONER, RIGHT | 198 | 1 |
| 97 | SPRING, TENSIONER, LEFT | 199 | 1 |
| 98 | Washer, #10 x .625 x .06, Stainless Steel | 200 | 2 |
| 99 | Screw, 10-32 x .250, Phillips Pan, External Tooth Lock Washer, 18-8 SS | 283 | 2 |
| 100 | Screw, 10-32 x .375, Hex Drive Button Head, 18-8 SS | 325 | 1 |
| 101 | GREASE DEFLECTOR ASSEMBLY (KEY) | KA-5 | 1 |
| 102 | FLOOR PANEL | 111 | 1 |
| 103 | BATTERY CARTRIDGE (9V) | 209 | 1 |
| 104 | Screw, 4-40 x .250, 82deg Phillips, 18-8 SS | 302 | 2 |
| 105 | BULKHEAD FITTING & NUT ASSEMBLY (KEY) | KA-8 | 1 |
| 106 | Screw, .3125-18 x .375, Button Head, Stainless Steel | 214 | 4 |
| 107 | TOOL HOOK | 308 | 2 |
| 108 | SKIN, FRONT ASSEMBLY | 126 | 1 |
| 109 | GREASE TRAY ASSEMBLY (KEY) | KA-6 | 1 |
| 110 | KNOB, GREASE TRAY | 68 | 1 |
| 111 | Screw, .250-20 x .500, Pan Head Phillips, External Tooth Lock Washer, SS | 132 | 1 |
| 112 | CHAIN | 159 | 1 |
| 113 | Washer, #12 x .500 x .04, Stainless Steel | 157 | 1 |
| 114 | TENSION ADJUSTING BRACKET | 148 | 1 |
| 115 | Screw, 10-32 x .375, Phillips Pan, External Tooth Lock Washer, Stainless Steel | 146 | 5 |
| 116 | Washer, .256 x .51 x .025, External Tooth Lock, Stainless Steel | 149 | 1 |
| 117 | Nut, .25-20, Stainless Steel | 158 | 1 |
| 118 | DRIVE GEAR | 141 | 1 |
| 119 | Bushing, Flanged, .625 x .75 x .625 | 140 | 2 |
| 120 | ARM, TRAVEL LIMITER | 144 | 1 |
| 121 | SPRING, SOFT STOP | 145 | 1 |
| 122 | GEAR BRACKET | 150 | 1 |
| 123 | Screw, 8-32 x .250, SHCS, External Tooth Lock Washer, Stainless Steel | 147 | 2 |
| 124 | BACKDRIVE SPRING | 323 | 1 |
| 125 | BACKDRIVE BUSHING | 322 | 1 |
| 126 | KEYWAY, WHEEL | 213 | 1 |
| 127 | WHEEL ASSEMBLY | 41 | 1 |
| 128 | Washer, .375 x .750 x .1, Stainless Steel | 204 | 1 |
| 129 | Washer, .384 x .694 x .035, External Tooth Lock, SS 18-8 | 282 | 1 |
| 130 | Bolt, .375-24 x .750, SHCS, Stainless Steel | 203 | 1 |
| 131 | WHEEL CENTER CAP | 67 | 1 |
| 132 | GROMMET | 275 | 2 |
| 133 | FRAME ASSEMBLY (KEY) | KA-7 | 1 |
| 134 | CASTER W/O BRAKE | 240 | 2 |
| 135 | CASTER W/ BRAKE | 334 | 2 |
| 136 | Bushing, Frame Door | 253 | 2 |

| | | | |
|------|---|-----|---|
| 137 | Bolt, M10 x 1.5 x 20, Hex Head, SS 18-8 | 254 | 2 |
| 138 | GROMMET, TANK BASE | 252 | 1 |
| 139 | TANK BASE | 241 | 1 |
| 140 | HOSE, LP GAS REGULATOR | 63 | 1 |
| 141 | FITTING, .500FEMALE FLARE TO .375 FLARE | 288 | 1 |
| 142 | REGULATOR, NG | 259 | 1 |
| 143 | Screw, 8-32 x .375, Phillips Pan, External Tooth Lock Washer, Stainless Steel | 269 | 2 |
| 144 | BRACKET, NG REGULATOR | 260 | 1 |
| 145 | Screw, Self-Tapping, 8-32 x .312, Flanged Hex, Stainless Steel | 268 | 2 |
| 146 | HOSE, NG REGULATOR TO GRILL | 263 | 1 |
| 147 | Brass Fitting, .5 NPT to .5 45deg Flare | 266 | 1 |
| 148 | Fitting, 90deg, .500 NPT to .500 SAE Flare | 279 | 1 |
| 149 | HOSE, NG | 265 | 1 |
| 150 | QUICK DISCONNECTOR, NG | 267 | 1 |
| 151 | LID | 19 | 1 |
| 152 | SLEEVE, IGNITOR WIRE HARNESS | 286 | 1 |
| 153 | SLEEVE, ELECTRODE | 309 | 3 |
| 154 | IGNITOR WIRE, RIGHT | 73 | 1 |
| 155 | IGNITOR WIRE, CENTER | 76 | 1 |
| 156 | IGNITOR WIRE, LEFT | 77 | 1 |
| 157 | WIRING, SPARK BOX | 75 | 1 |
| AC-1 | COVER, FREESTANDING | 45 | 1 |
| AC-2 | SMOKER BOX | 300 | 1 |
| AC-3 | GRATE HOOK | 311 | 1 |
| AC-4 | BRUSH | 320 | 1 |

EXPLODED VIEW AND REPLACEMENT PARTS LIST

(BUILT-IN MODEL)



| | | | |
|----|--|-----|----|
| 1 | HANDLE GASKET | 7 | 2 |
| 2 | O-RING, BATTERY END CAP | 9 | 2 |
| 3 | LED Driver PCB | 12 | 1 |
| 4 | BATTERY CARTRIDGE | 13 | 1 |
| 5 | LED LIGHT | 18 | 2 |
| 6 | LID | 19 | 1 |
| 7 | GAS KNOB WITH INSERT | 34 | 3 |
| 8 | HINGE PIN, LID | 35 | 2 |
| 9 | TOP PLATE | 37 | 1 |
| 10 | WHEEL ASSEMBLY | 41 | 1 |
| 11 | HINGE STOP BAR, LEFT | 44 | 1 |
| 12 | THERMOMETER BEZEL GASKET | 46 | 1 |
| 13 | POINTER, GAS KNOBS | 53 | 1 |
| 14 | 12-24 x 3/8, PHILLIPS PAN HEAD, STAINLESS STEEL | 56 | 5 |
| 15 | Washer, #12, External Tooth Lock, Stainless Steel | 57 | 6 |
| 16 | HANDLE END CAP | 58 | 1 |
| 17 | 2-56 x .188, Phillips Pan, 18-8 SS | 59 | 5 |
| 18 | .25-20 x .75, Button Head, Stainless Steel | 61 | 4 |
| 19 | WHEEL CENTER CAP | 67 | 1 |
| 20 | IGNITOR WIRE, RIGHT | 73 | 1 |
| 21 | IGNITOR | 74 | 3 |
| 22 | WIRING, SPARK BOX | 75 | 1 |
| 23 | IGNITOR WIRE, CENTER | 76 | 1 |
| 24 | IGNITOR WIRE, LEFT | 77 | 1 |
| 25 | SCISSOR LEG WELDMENT | 79 | 2 |
| 26 | SCISSOR LEG 2 | 82 | 2 |
| 27 | SPACER, PIVOT | 83 | 2 |
| 28 | WASHER, .258 X .562 X .04, STAINLESS STEEL | 84 | 12 |
| 29 | Nut, Stover, .25-20, Stainless Steel | 85 | 11 |
| 30 | Bushing, .25 x .375 x .25 | 86 | 4 |
| 31 | Screw, .25-20 x 1.75, Hex Head, Stainless Steel | 87 | 2 |
| 32 | Bushing, .25 x .375 x .375 | 88 | 4 |
| 33 | Bushing, .189 x .312 x .25 | 89 | 4 |
| 34 | INSULATOR, BEARING PLATE | 91 | 2 |
| 35 | INSULATOR, MIDDLE BRACKET | 92 | 2 |
| 36 | Screw, 10-32 x .625, Phillips Pan, External Tooth Lock Washer, Stainless Steel | 93 | 4 |
| 37 | Screw, 10-32 x .440, Phillips Pan, External Tooth Lock Washer, Stainless Steel | 94 | 4 |
| 38 | SIDE SCREW GEAR ASSEMBLY | 96 | 1 |
| 39 | SPROCKET, 18T | 98 | 3 |
| 40 | BRACKET, SIDE SCREW, MIDDLE | 101 | 1 |
| 41 | CLIP, BEARING | 102 | 1 |
| 42 | Bushing, Flanged, .250 x .375 x .250 | 103 | 1 |
| 43 | BRACKET, SIDE SCREW, FRONT | 104 | 1 |
| 44 | ACME NUT, SIDE SCREW | 105 | 1 |
| 45 | Screw, .250-20 x .875, Hex Head, Stainless Steel | 106 | 2 |
| 46 | GRATE, LEFT | 107 | 1 |
| 47 | GRATE, CENTER | 108 | 1 |
| 48 | GREASE DEFLECTOR, FRONT, ASSEMBLY | 120 | 1 |
| 49 | Screw, 8-32 x .250, Phillips Pan, External Tooth Lock Washer, Stainless Steel | 129 | 26 |
| 50 | Screw, 6-32 x .188, Phillips Pan, External Tooth Lock Washer, Stainless Steel | 131 | 6 |
| 51 | Screw, 8-32 x .312, Phillips Pan, External Tooth Lock Washer, Stainless Steel | 137 | 11 |
| 52 | Bushing, Flanged, .625 x .75 x .625 | 140 | 2 |
| 53 | DRIVE GEAR | 141 | 1 |
| 54 | ARM, TRAVEL LIMITER | 144 | 1 |
| 55 | SPRING, SOFT STOP | 145 | 1 |
| 56 | Screw, 10-32 x .375, Phillips Pan, External Tooth Lock Washer, Stainless Steel | 146 | 4 |
| 57 | Screw, 8-32 x .250, SHCS, External Tooth Lock Washer, Stainless Steel | 147 | 2 |
| 58 | TENSION ADJUSTING BRACKET | 148 | 1 |
| 59 | Washer, .256 x .51 x .025, External Tooth Lock, Stainless Steel | 149 | 1 |
| 60 | GEAR BRACKET | 150 | 1 |
| 61 | Washer, .225 x .500 x .04, SS 18-8 | 157 | 1 |
| 62 | Nut, .25-20, Stainless Steel | 158 | 1 |
| 63 | CHAIN | 159 | 1 |
| 64 | BURNER BED FRAME | 161 | 1 |
| 65 | ORIFICE BRACKET | 167 | 1 |
| 66 | ORIFICE HOLDER | 168 | 3 |
| 67 | GAS DISTRIBUTION LINE, 8IN | 170 | 1 |
| 68 | GAS DISTRIBUTION LINE, 9IN | 171 | 2 |
| 69 | LOWER RADIANT | 173 | 2 |

| | | | |
|-----|---|------|----|
| 70 | BURNER, LEFT | 174 | 1 |
| 71 | BURNER, CENTER | 175 | 1 |
| 72 | BURNER, RIGHT | 176 | 1 |
| 73 | UPPER RADIANT | 177 | 3 |
| 74 | ELECTRODE COVER | 178 | 1 |
| 75 | IGNITER HOLDER WELDMENT 1 | 180 | 2 |
| 76 | IGNITER HOLDER WELDMENT 2 | 181 | 1 |
| 77 | HEAT SHIELD ASSEMBLY, LEFT | 186 | 1 |
| 78 | HEAT SHIELD ASSEMBLY, RIGHT | 190 | 1 |
| 79 | TENSIONER ARM | 197 | 2 |
| 80 | SPRING, TENSIONER, RIGHT | 198 | 1 |
| 81 | SPRING, TENSIONER, LEFT | 199 | 1 |
| 82 | Washer, #10 x .625 x .06, Stainless Steel | 200 | 2 |
| 83 | BUSHING, TOP IDLER | 201 | 2 |
| 84 | Screw, .250-20 x .500, Hex Head, Stainless Steel | 202 | 2 |
| 85 | Bolt, .375-24 x .750, Hex Head, Stainless Steel | 203 | 1 |
| 86 | Washer, .375 x .750 x .1, Stainless Steel | 204 | 1 |
| 87 | GLASS DISC | 205 | 2 |
| 88 | O-RING (-217, SILICONE) | 206 | 2 |
| 89 | Screw, 8-32 x 1.0, Phillips Pan, 18-8 SS | 385 | 8 |
| 90 | GRATE, RIGHT | 208 | 1 |
| 91 | BATTERY CARTRIDGE (9V) | 209 | 1 |
| 92 | THERMOMETER | 210 | 1 |
| 93 | SPARK MODULE | 211 | 1 |
| 94 | SPRING, LID | 212 | 2 |
| 95 | KEYWAY, WHEEL | 213 | 1 |
| 96 | Washer, .25 x .478 x .025, Internal Tooth Lock, Stainless Steel | 218 | 4 |
| 97 | SCREW, HINGE STOP | 219 | 2 |
| 98 | REGULATOR, NG | 259 | 1 |
| 99 | Screw, 8-32 x .375, Phillips Pan, External Tooth Lock Washer, Stainless Steel | 269 | 2 |
| 100 | COTTER PIN | 273 | 10 |
| 101 | Fitting, 90deg Bulkhead, .500 SAE Flare to .500 SAE Flare | 280 | 1 |
| 102 | Bulkhead Nut, .750-16 | 281 | 1 |
| 103 | Washer, .384 x .694 x .035, External Tooth Lock, SS 18-8 | 282 | 1 |
| 104 | Screw, 10-32 x .250, Phillips Pan, External Tooth Lock Washer, 18-8 SS | 283 | 2 |
| 105 | SLEEVE, IGNITOR WIRE HARNESS | 286 | 1 |
| 106 | HOSE, INTERNAL | 287 | 1 |
| 107 | SPRING, INTERNAL LID | 289 | 2 |
| 108 | Screw, 6-32 x .250, Phillips Pan, External Tooth Lock Washer, 18-8 SS | 291 | 2 |
| 109 | COVER, LID SPRING | 292 | 2 |
| 110 | HINGE STOP BAR, RIGHT | 299 | 1 |
| 111 | Screw, 4-40 x .250, 82deg Phillips, 18-8 SS | 302 | 2 |
| 112 | SLEEVE, ELECTRODE | 309 | 3 |
| 113 | THERMOMETER BEZEL | 310 | 1 |
| 114 | THERMOMETER NUT | 317 | 1 |
| 115 | ORIFICE, #59 | 318 | 3 |
| 116 | BACKDRIVE BUSHING | 322 | 1 |
| 117 | BACKDRIVE SPRING | 323 | 1 |
| 118 | Screw, 12-24 x .250, Phillips Pan, Stainless Steel | 345 | 1 |
| 119 | Screw, M4 x 0.7 x 10mm, Phillips Pan, 18-8 SS | 346 | 4 |
| 120 | VALVE STEM SLEEVE | 347 | 3 |
| 121 | FRONT SKIN WELDMENT | 359 | 1 |
| 122 | LEFT SKIN WELDMENT, BUILT IN | 362 | 1 |
| 123 | FRONT SKIN BRACKET, BUILT IN | 363 | 1 |
| 124 | HEAT SHIELD ASSEMBLY | 367 | 1 |
| 125 | GREASE TRAY WELDMENT, BUILT IN | 371 | 1 |
| 126 | EAR FRAME, BUILT IN | 372 | 2 |
| 127 | HEAT SHIELD, GAS HOSE | 377 | 1 |
| 128 | WASHER, 765 x 1312 x .090, SS | 378 | 1 |
| 129 | GREASE TRAY BUMPER | 379 | 2 |
| 130 | SCREW, 312-18 x 750, 18-8 SS BUTTON HEAD HEX DRIVE | 380 | 8 |
| 131 | Washer, 344 x 688 x .050, 18-8 | 381 | 8 |
| 132 | FITTING, .500 SAE FLARE FEMALE TO .500 NPT MALE | 382 | 1 |
| 133 | WATER DAM | 383 | 1 |
| 134 | HANDLE ASSEMBLY (KEY) | KA-1 | 1 |
| 135 | GAS VALVE ASSEMBLY (KEY) | KA-2 | 3 |
| 136 | MANIFOLD ASSEMBLY (KEY) | KA-3 | 1 |
| 137 | BRUSH ASSEMBLY (KEY) | KA-4 | 2 |
| 138 | HOLE PLUG, INNER LID | 376 | 8 |

| | | | |
|-----|-----------------|---------|---|
| AC- | GRATE HOOK | 311 | 1 |
| AC- | COVER, BUILT IN | 384 | 1 |
| AC- | SMOKER BOX | 300/301 | 1 |
| 1 | HANDLE GASKET | 7 | 2 |

FERNO GRILLS RATINGS/SERIAL NUMBER INFORMATION

(For the Freestanding Model, located on the outside and inside rear of the tank shroud, for the Built-in Model, located on the bottom of the Drip Tray and on the lower left side of the grill body.)

FERNO GRILLS, LLC - GOLETA, CA 93117

MODEL: SERIAL:
GAS: NATURAL, 4" W.C. ☒ LP, 11" W.C.
INPUT: ☒ MAIN BURNER, 12,000 Btu/Hr

MINIMUM CLEARANCE FROM THE SIDES AND BACK OF UNIT TO ADJACENT COMBUSTIBLE CONSTRUCTION BELOW TOP OF UNIT, 12 INCHES FROM SIDE TO BACK. MINIMUM HORIZONTAL CLEARANCE FROM SIDES AND BACK OF UNIT TO ADJACENT VERTICAL COMBUSTIBLE CONSTRUCTION EXTENDING ABOVE TOP OF UNIT, 18 INCHES FROM SIDES AND BACK.

DO NOT LOCATE THIS APPLIANCE UNDER OVERHEAD COMBUSTIBLE SURFACES. FOR OUTDOOR USE ONLY. IF STORED INDOORS, DETACH AND LEAVE CYLINDER OUTDOORS. DO NOT STORE SPARE LP CYLINDERS UNDER OR NEAR THIS UNIT. NEVER FILL EACH CYLINDER BEYOND 80%. NOT FOLLOWING THESE GUIDELINES CAN CAUSE SERIOUS INJURY OR DEATH.

CAUTION: USE ONLY THE GAS PRESSURE REGULATOR SUPPLIED WITH THIS APPLIANCE, WHICH HAS BEEN SET FOR AN OUTLET PRESSURE OF 11" WC (LP)/2.74 kPa AND 4" WC (NG)/1.0 kPa.



CONFORMS TO ANSI STD Z21.58-2018 OUTDOOR COOKING GAS APPLIANCES

Intertek
c# 5012273

FERNO GRILLS WARRANTY INFORMATION

I. Limited Twenty-Year Warranty___The stainless-steel grill housings and frame are warranted to be free from defects in material and workmanship when subjected to normal domestic use and service for a period of twenty (20) years from the original date of purchase. This warranty excludes discoloration, surface scratches, weather and atmospheric related staining, and minor surface rust and oxidation which are normal conditions and to be expected with any outdoor product. This warranty is limited to the replacement of the defective parts, with the owner paying all other cost including labor, shipping, and handling.

II. Limited Ten-Year Warranty___The following grill parts are warranted to be free from defects in material and workmanship, when subjected to normal domestic use and service, for a period of ten (10) years from the original date of purchase. Cast iron cooking grates, stainless steel tube burners, stainless steel burner radiants, stainless steel burner bed and all associated jack and transmission components, manifold and gas valves. This warranty is limited to the replacement of the defective parts, with the owner paying all other costs including labor, shipping, and handling.

III. Limited Two-Year Warranty___All other grill components are warranted to be free from defects in material and workmanship, when subjected to normal domestic use and service, for a period of two (2) years from the original date of purchase, excluding batteries. This warranty is limited to the replacement of the defective parts, with the owner paying all other costs including labor, shipping, and handling.

IV. Limited One-Year Warranty___For a period of one (1) year from the original date of purchase, Ferno Grills, LLC will replace, or repair parts found to be defective at no cost to the original purchaser, excluding batteries. This includes the cost of shipping replacement parts and, where necessary, service labor at prevailing local rates by a Ferno Grills, LLC authorized service person. Service will be provided during normal business hours and must be authorized in advance by Ferno Grills, LLC.

LIMITATIONS & EXCLUSIONS

This warranty shall apply only to products purchased and located in the continental United States. The warranty coverage begins on the original date of purchase and proof of date of purchase is required. This warranty applies only to the original purchaser and may not be transferred. This warranty does not apply to damages resulting from negligence, alteration, misuse, abuse, flare-up fires, accident, natural disaster, improper installation or improper operation, unauthorized adjustments or calibrations, dings, dents, scratches, or damages due to harsh cleaning chemicals. This warranty does not apply to commercial use, or to products with altered or removed serial numbers. Examples of excluded applications include, but are not limited to day care centers, schools, bed and breakfast centers, churches, private clubs, fire stations, club houses, common areas in multi-family dwellings, restaurants, hotels, nursing homes, food service locations and institutional food service locations.

Ferno Grills, LLC shall not be liable for incidental, consequential, special or contingent damages resulting from its breach of this written warranty or any implied warranty. This warranty does not apply to damages due to service by an unauthorized service provider or use of unauthorized parts. Warranty is in lieu of all other warranties expressed or implied and all other obligations or liabilities related to the sale or use of its grill products.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusions of or limitations on consequential damages. This warranty gives you specific legal rights and you may have other rights, which vary from state to state. No one has the authority to add to or vary Ferno Grill's warranty, or to create for Ferno Grills any other obligation or liability in connection with the sale or use of its products and is limited to the replacement of defective parts with the owner paying all other costs including labor.