



# MAK GRILLS®

American Made Pellet Grills



**MAK ONE-STAR GENERAL**  
**MAK TWO-STAR GENERAL**

MAK GRILLS  
Owner's Manual

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American Made Pellet Grills

## OWNER'S MANUAL



**ONE STAR  
GENERAL**

**TWO STAR  
GENERAL**





# Welcome to the MAK family!

Your grill was assembled by hand and inspected at every stage by tradesmen and tradeswomen who live and work amid the green hills of Oregon's Willamette Valley. If you have any questions about the grill or its operation, do not hesitate to contact us. We can be reached via email at [support@makgrills.com](mailto:support@makgrills.com), or by phone Monday-Friday 8am to 5pm PST at 503-623-1234.

In the following pages, you'll find detailed information about everything that came in your box, as well as assembly and initial burn-in, the Pellet Boss controller, and cooking tips. Please take some time to familiarize yourself with the parts inventory and user warnings before assembling your grill. You will need two people for assembly, so promise a friend some food fresh off your new MAK in exchange for their assistance.

Pellet smoking is both art and science. As an art, it's about creating delicious food time and time again. On a MAK Grill you can smoke, roast, bake, grill, and sear with ease. As a science, it involves a careful balance of airflow, ignition, fuel, and temperature control all powered by electricity. We advise you to read carefully SECTION FIVE: CLEANING & MAINTENANCE of this manual in order to keep your MAK operating at peak performance.

Your MAK Grill is the result of years of research, hard work, and feedback from users such as yourself. Every innovation and accessory we've ever introduced was suggested to us by MAK owners looking to help us create the ultimate cooking tool. As you venture into a whole new realm of outdoor cooking, please stay in touch! We look forward to years of conversation and cooking tips as you discover how to put your grill to the best possible use. Bon appetit! (Or, as we say in the Pacific Northwest, Prost!)



Please register your grill at [www.makgrills.com/registration](http://www.makgrills.com/registration)

Grill Serial number

Date Purchased

Pellet Boss Firmware Version No.

Inspected by: \_\_\_\_\_ Date: \_\_\_\_\_



# CONTENTS



WARRANTY .....	8
SAFETY INFORMATION .....	9
ASSEMBLY INSTRUCTIONS	
ONE STAR GENERAL .....	11
TWO STAR GENERAL .....	19
INITIAL BURN-IN .....	27
PELLET BOSS .....	31
CLEANING & MAINTENANCE .....	45
TROUBLESHOOTING & REPAIRS .....	53
COOKING TIPS	
TEMPERATURE GUIDE .....	62
TIPS & TRICKS .....	63
COOKING METHODS .....	64
COLD & HOT WEATHER TIPS ...	65
RUBS & SAUCES .....	66
RECIPES .....	69
GRILL ACCESSORIES .....	70
STAY IN TOUCH! .....	71



We make one promise to the MAK Family—we will take care of you. If your grill or its components are found to be mechanically flawed or defective, we will replace them free of charge (shipping excluded) for the duration of the life of the grill. This warranty applies to the original owner of the grill and is not transferrable.

We provide a warranty against defects in materials and workmanship for all original equipment and replacement parts supplied by MAK GRILLS, as specified below.

*This warranty does not cover:*

- ▶ **Defects or damage resulting from:**
  - Normal wear and tear
  - Improper assembly
  - Corrosion
  - Improper maintenance
  - Improper use
  - Installation of components, parts, or accessories not originally intended for or compatible with the grill as sold
  - Accident, misuse, abuse, or neglect
  - Loss or theft
- ▶ **Any damage or defect to powder coat finish on the unit**
- ▶ **Accessory products (meat probes, covers, etc.)**

This warranty applies to all 2019 model MAK Grills or newer. Proof of purchase required.

MAK GRILLS obligation under this warranty is limited to repairing or providing a replacement for any part found by MAK GRILLS to be defective. MAK GRILLS is not responsible for any reassembly of the replacement part. All products must be returned to MAK GRILLS at the owner's expense and inspected by MAK GRILLS staff before a replacement is given.

MAK GRILLS does not pro rate or offer partial credit. Customer should inspect the unit on purchase for any defects and immediately contact the retailer of any apparent damage for which the retailer may be responsible.

If you did not purchase your grill from MAK GRILLS or an official MAK distributor, this warranty is void.

This warranty is void if the unit is not assembled or operated according to the operation instructions provided with the unit, components, accessories, or fuels not compatible with the unit have been used, or the unit has been used in a commercial or food service application.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, STATUTORY OR OTHERWISE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES CONCERNING FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, QUALITY OR CONDITION. ANY AND ALL OTHER REPRESENTATIONS AND WARRANTIES MADE BY MAK GRILLS OR ANY THIRD-PARTY DISTRIBUTOR OR RETAILER ARE HEREBY WAIVED.

Contact MAK GRILLS at [Support@MAKGrills.com](mailto:Support@MAKGrills.com) in order to submit a warranty claim.

## WARNINGS & PRECAUTIONS

Please read this manual before assembling or using your MAK Grill. This unit includes electrical components and produces real wood fire—failure to understand and follow proper guidelines for use can result in property damage, bodily injury, or death. Contact your local building or fire officials to learn about restrictions and installation inspection requirements in your area.

Your MAK Grill was designed and built for RESIDENTIAL OUTDOOR USE ONLY. Any other use may cause serious injury or property damage, and will void any and all warranties.

Do not operate or store the grill near liquid combustibles such as gasoline. Do not use any fuel in the grill except cooking pellets.

Always maintain a minimum clearance of 24 inches around the grill. The unit will be hot during use. Use handles to open lids. In case of fire or any other emergency, unplug the grill. Before removing the fan panel or Pellet Boss, unplug the grill. Unplug the grill when not in use.

## CARBON MONOXIDE POISONING

Follow these guidelines to prevent carbon monoxide poisoning:

- A. Carbon monoxide is a toxic odorless and colorless gas. Know the symptoms of carbon monoxide poisoning, which include: headache, dizziness, weakness, nausea, vomiting, sleepiness, and confusion. Carbon monoxide poisoning reduces the blood's ability to carry oxygen—low blood oxygen levels can result in loss of consciousness or death.
- B. See a doctor if you or others develop cold or flu-like symptoms while cooking or in the vicinity of the grill. Carbon monoxide poisoning is easily mistaken for a cold or flu and is often detected too late as a result.
- C. Alcohol consumption or drug use will increase the effects of carbon monoxide poisoning.

Carbon monoxide poisoning is especially toxic to mother and child during pregnancy, infants, the elderly, smokers, and people with blood or circulatory system problems, such as anemia or heart disease.

## ADDITIONAL WARNINGS

- Always use your MAK Grill outside in a well-ventilated area. Never use indoors, or in an enclosed area.
- Unplug the cord when grill is not in use.
- Improper installation or assembly may result in uncontrolled fire.
- Always maintain proper clearance between the grill and combustible materials. Minimum airspace around the unit is 24 inches. For built-in models, use only flame-retardant materials such as cinder block, concrete, and stainless steel.
- Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or enhance a fire in this grill. Keep combustible liquids and all motorized vehicles away from the grill at all times, especially when it is in use.
- Never place flammable materials or materials that can melt under the grill when in use.
- Keep exhaust louvers unobstructed; clean them regularly to maintain proper airflow.
- To prevent grease fires, follow the Cleaning Schedule on page 50.
- Contact your local building inspector and/or fire officials regarding restrictions and installation inspection requirements for your area.
- Never move or transport a hot grill, or a grill that is in use.
- **Should a grease fire occur, turn the grill off and unplug it from the power source. Carefully remove all food and leave the grill lid closed until the fire is out.**
- When grill is in use, assume all surfaces are hot, with the exception of handles.
- Save these instructions for future reference.

# ONE STAR GENERAL



GENERAL SPECIFICATIONS . . . . .	12
BBQ DIAGRAM . . . . .	13
PARTS LIST . . . . .	14
ASSEMBLY INSTRUCTIONS . . . . .	15



## **ONE-STAR GENERAL SPECIFICATIONS**

**GRILL DIMENSIONS:** 49"H x 40"W x 21.5"D

**PRIMARY COOKING SURFACE:** 429 in.<sup>2</sup> (19.5" x 22" x 14")

**TOTAL POSSIBLE COOKING SURFACE:** 858 in.<sup>2</sup> (with one full slide-in upper grate)

**GRILL WEIGHT:** 160 lbs.

**CONSTRUCTION:** Type 1 ACS body; 304 stainless steel internal components

**FINISH:** 850°F high-temp powder coat

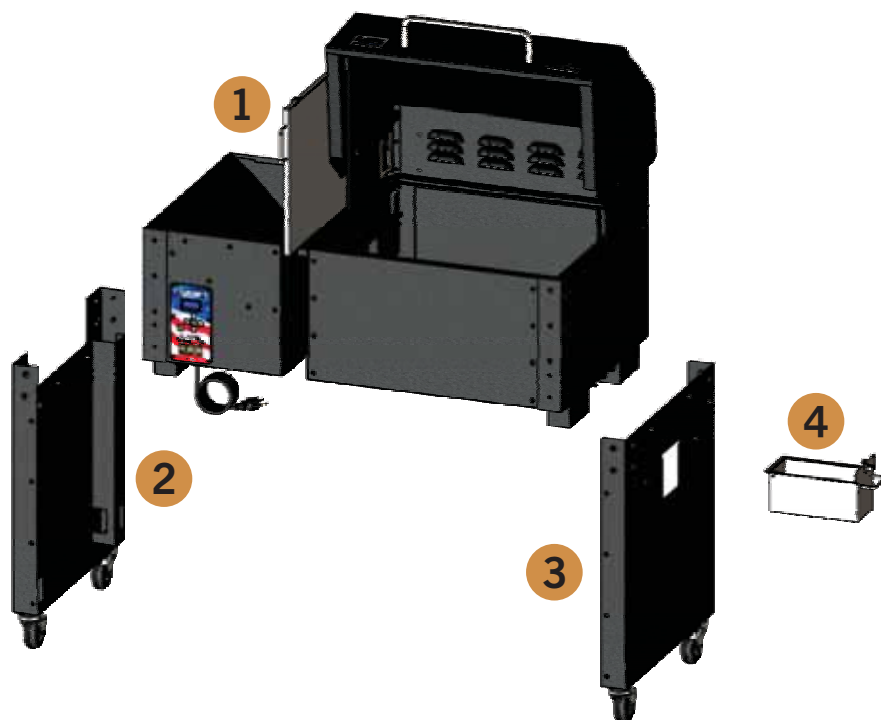
**HOPPER CAPACITY:** 20 lbs. (1 bag of pellets)

**GREASE COLLECTION:** Two-quart grease drawer

**SMOKING TEMPERATURE RANGE:** 170°F-190°F

**COOKING TEMPERATURE RANGE:** 200°F-450°F

## BBQ DIAGRAM



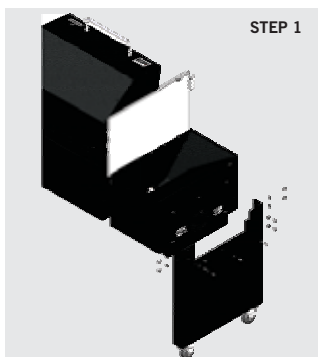
- 1 Grill Body with attached Pellet Hopper
- 2 Left leg panel
- 3 Right leg panel
- 4 Internal grease drawer

## ONE STAR GENERAL PARTS LIST

<p><b>GRILL BODY</b></p> 	<p><b>GREASE DRAWER</b></p> 
<p><b>LEFT LEG PANEL W/CASTERS</b></p> 	<p><b>ASH CLEANOUT COVER</b></p> 
<p><b>RIGHT LEG PANEL W/CASTERS</b></p> 	<p><b>GREASE SHIELD</b></p> 
<p><b>SMALL HANDLES</b></p> 	<p><b>LARGE HANDLE W/RUBBER GRIP</b></p> 
<p><b>SPLIT COOKING GRATES</b></p> 	<p><b>FLAME ZONE</b></p>  <p>FlameZone covers →</p> <p>Diffuser →</p> <p>FlameZone pan →</p> <p>FlameZone funnel →</p>
<p><b>HEX WRENCH SET</b></p> 	
<p><b>1/4"-20 X 3/8" SCREW (25)</b></p> 	<p><b>1/4"-20 FLANGE NUT (25)</b></p> 
<p><b>#6 X 3/8" SCREW (5)</b></p> 	<p><b>#6 LOCK WASHER (5)</b></p> 
<p><b>SPARE FUSE</b></p> 	<p><b>K-STYLE MEAT PROBE</b></p> 

# ASSEMBLY INSTRUCTIONS

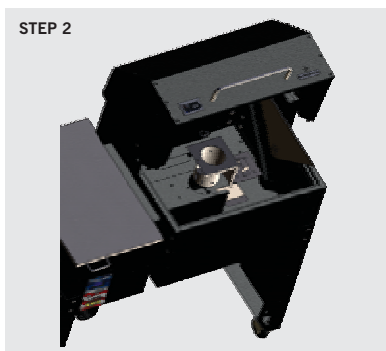
Assembly of your MAK Grill requires two people. Begin by removing the leg panel boxes, then remove the cardboard sleeve surrounding the grill. Make sure all parts and hardware are included in the packaging before beginning assembly. Remove and flatten the outer cardboard sleeve to set the grill body on top of while assembling the leg panels. Open and flatten one of the leg panel boxes to work on.



## STEP 1

Remove the fan panel on the left side of the grill. Identify the left and right leg panels; the left panel has a cutout for the fan panel, and the right panel has a cutout for the grease drawer. To attach leg panels to the grill, align the screw holes; attach each panel with six 1/4"-20 x 3/8" screws, starting from the top and working down. Finger-tighten the flange nuts to hold the screws in place. You must reach inside and under the grill to attach some of the nuts. DO NOT stand the grill up

by yourself. Ensure all leg screws are tight, and with the help of another person stand the grill upright to complete assembly.

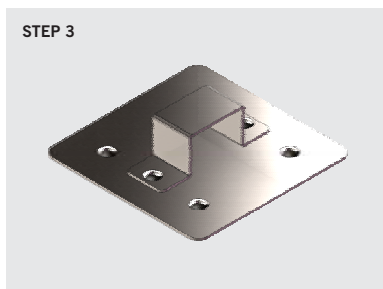


## STEP 2

Insert the triangular grease shield on the right side of the grill. The bottom tab will face the firepot, and the upper lip will overlap the V- flange on both sides of the grease drain.

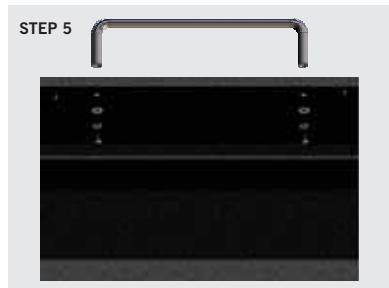
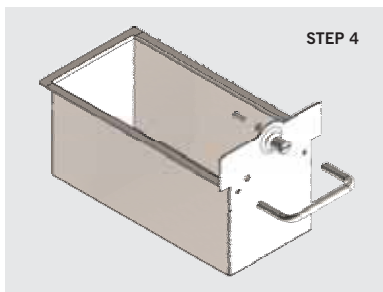
## STEP 3

Place the ash cleanout cover over the cutout located between the firepot and the grease shield inside the bottom of the grill.



**STEP 4**

With two #6 x 3/8" screws and lock washers, attach the grease drawer handle to the grease drawer. Then slide the grease drawer in place, inserting the top flange into the slots on the right side of the grill body. Push the drawer all the way in to capture grease runoff.



**STEP 5**

To slide the rubber grip onto the grill lid handle, squeeze 2-3 drops of dish soap down the center. Warning! This product contains a chemical known to the state of California to cause cancer. With two each 1/4" x 1/2" screws, 1/4" lock washers, and 1/4" x 5/8" flat washers, attach the handle to the grill lid with both washers on the inside of the lid.

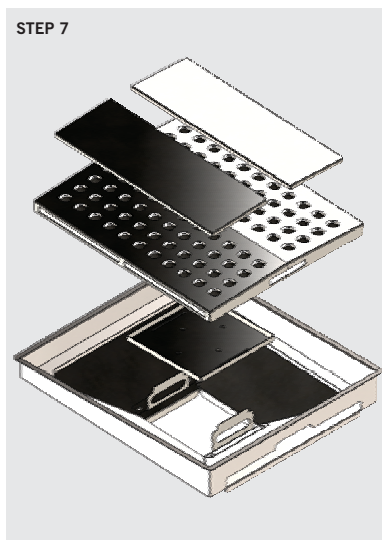
**STEP 6**

With two #6 x 3/8" screws and two 1/4" lock washers, attach the remaining small handle to the pellet hopper lid.



**STEP 7 - INSTALL THE FLAMEZONE**

1. Place the funnel grease tray on the lip around the inside of the cooking chamber. The lip below the slot on the right side of the tray fits over the top of the triangular grease shield. When properly installed, the grease tray slopes toward the right of the grill to channel grease into the grease drawer.
2. With the grease tray installed, place the square heat diffuser over the handles at the bottom of the grease tray. The embossed word "TOP" should be visible.
3. Place the FlameZone pan over the raised lip around the top of the grease tray.
4. The FlameZone covers fit over the front and back ports of the FlameZone pan. There will be a peak between the front and rear FlameZone covers. To grill, remove one or both covers for direct heat/indirect flame. For all other cooking methods (smoking, roasting, baking, etc.), leave the covers in place.
5. Place the split cooking grates horizontally into the top of the grease tray.

**STEP 8**

Place the split cooking grates on the extended lip running just below the interior edge of the grill. Each grate should sit side-to-side and level.

**ONE STAR GENERAL ASSEMBLY**



# TWO STAR GENERAL



**TWO STAR GENERAL ASSEMBLY**

<b>GENERAL SPECIFICATIONS . . . . .</b>	<b>20</b>
<b>BBQ DIAGRAM . . . . .</b>	<b>21</b>
<b>PARTS LIST . . . . .</b>	<b>22</b>
<b>ASSEMBLY INSTRUCTIONS . . . . .</b>	<b>23</b>



## **TWO-STAR GENERAL SPECIFICATIONS**

**GRILL DIMENSIONS:** 49”H x 60”W x 25”D

**PRIMARY COOKING SURFACE:** 429 in.<sup>2</sup> (19.5” x 22” x 14”)

**TOTAL POSSIBLE COOKING SURFACE:** 1617 in.<sup>2</sup> (with one 3/4 and two upper grates)

**GRILL WEIGHT:** 235 lbs.

**CONSTRUCTION:** 304 stainless steel; Type 1 ACS

**FINISH:** 850°F high-temp powder coat

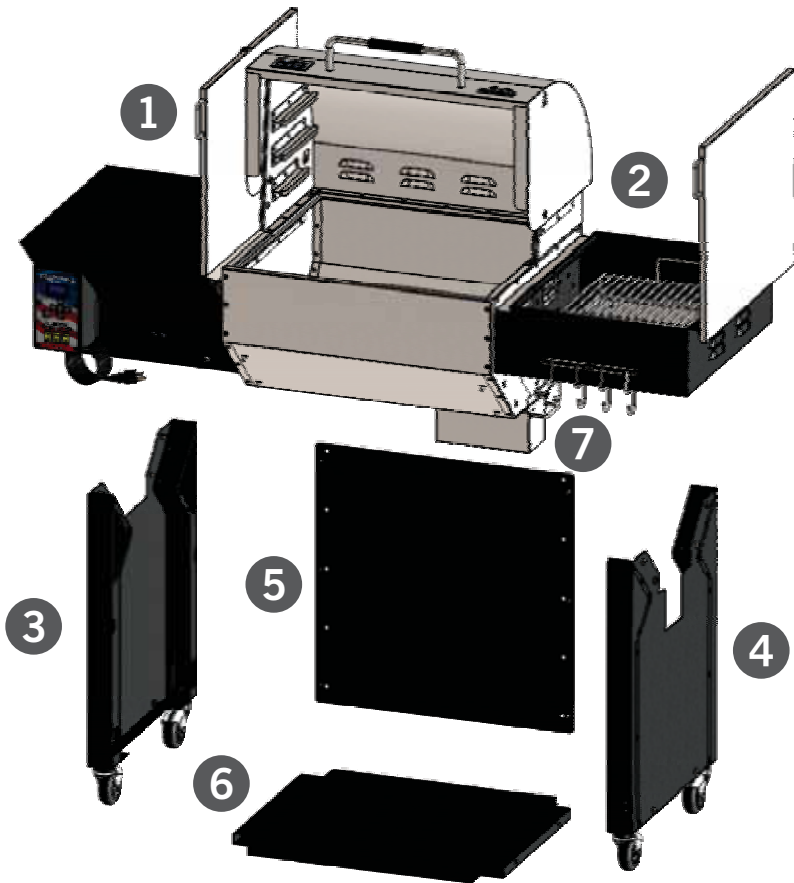
**HOPPER CAPACITY:** 20 lbs. (1 bag of pellets)

**GREASE COLLECTION:** Two-quart grease drawer

**SMOKING TEMPERATURE RANGE:** 170°F-190°F


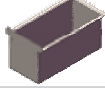






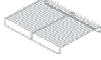
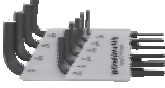








**COOKING TEMPERATURE RANGE:** 200°F-450°F; high temperature governed at 600°F

## BBQ DIAGRAM



- 1 2-Star Grill Body
- 2 Warmer/Smoker box
- 3 Left leg panel
- 4 Right leg panel
- 5 Back splash
- 6 Bottom shelf
- 7 Internal grease drawer

## TWO-STAR GENERAL PARTS LIST

GRILL BODY		GREASE DRAWER	
LEFT LEG PANEL W/CASTERS		GREASE SHIELD	
RIGHT LEG PANEL W/CASTERS		SMALL HANDLES	
SPLIT COOKING GRATES		LARGE HANDLE W/RUBBER GRIP	
BOTTOM SHELF		ASH CLEANOUT COVER	
WARMER/SMOKER BOX		BACK SPLASH	
FUNNEL GREASE TRAY FRAME		WARMER/SMOKER BOX GRATE	
FLAMEZONE PAN		WARMER/SMOKER BOX GREASE TRAY	
HEX WRENCH SET		TOOL HOOK	
1/4"-20 x 1/2" screw (35) takes 9/64" hex wrench		FLAMEZONE COVERS	
#6 x 3/8" screw (7) takes 5/64" hex wrench		1/4" lock washer (32)	
#6 lock washer (7)		1/4" x 5/8" flat washer (4)	
SPARE FUSE		1/4"-20 flat nut (21)	
K-STYLE MEAT PROBE			

# ASSEMBLY INSTRUCTIONS

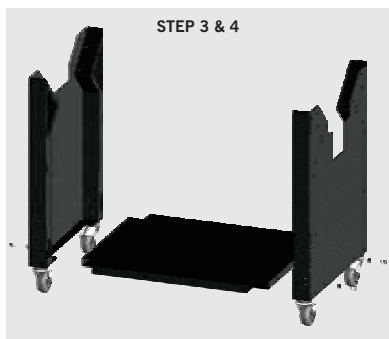
Assembly of your MAK Grill requires two people. Begin by removing the leg panel boxes, then remove the cardboard sleeve surrounding the grill. Make sure all parts and hardware are included in the packaging before beginning assembly. Remove and flatten the outer cardboard sleeve to set the grill body on top of while assembling the leg panels. Open and flatten one of the leg panel boxes to work on.

## STEP 1

Lay the base tray on the flattened leg panel box.

## STEP 2

Hold the bottom shelf vertical with the left edge on the ground. Place the right leg panel on the right edge of the bottom shelf (Image 3). The corner cutouts on the bottom shelf will line up with the inside caster supports.



## STEP 3

Use four 1/4"-20 x 1/2" screws with lock washers to hold the bottom shelf in place; secure it with four finger-tightened 1/2"-20 lock nuts.

## STEP 4

Lay the attached right leg panel flat on your cardboard workspace and repeat Steps 2 and 3 to secure the left leg panel in place.

## STEP 5

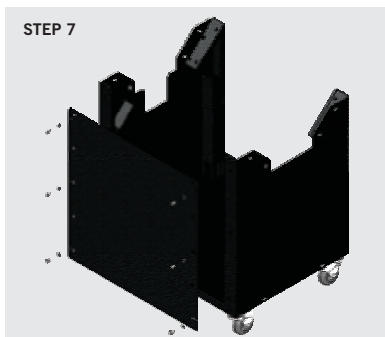
Use the 5/32" hex wrench to firmly tighten all the screws on the leg assembly.

## STEP 6

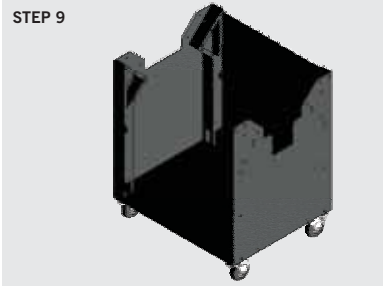
Set the leg assembly upright with the casters on the ground and lock all four casters to keep the leg assembly from moving.

## STEP 7

Attach the backslash to the back of the cart assembly using six 1/4"-20 x 1/2" screws with 1/4" lock washers; the nuts for attaching the backslash are welded to the leg panels. There is only one way for the backslash to fit—line up the rivets with the same size holes cut into the backslash.



## STEP 9



## STEP 8

Finger tighten the screws to hold the backsplash loosely in place; wait to fully tighten until the grill body has been attached to the cart.

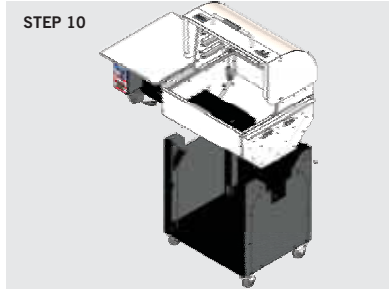
## STEP 9

With two people, lift the grill body onto the cart assembly.

## STEP 10

Align each leg screw hole with the grill body and attach grill body to cart assembly using eight 1/4"-20 x 1/2" screws with lock washers; there will be two screws per leg on the outside and two screws per leg on the inside; nuts are welded to the legs.

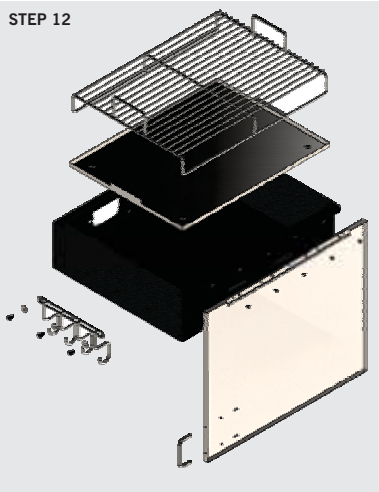
## STEP 10



## STEP 11

Finger-tighten the eight screws; you may need to shift the grill body or cart assembly to line up all the holes. When all screws have been started in the nuts, use the 5/32" hex wrench to fully tighten the screws.

## STEP 12



## STEP 12

To attach the warmer/smoker box, rest the lip on the left side of the box over the bracket on the right side of the grill body and tilt it into position. Finger-tighten five 1/4"-20 x 1/2" screws with 1/4" lock washers and nuts; nuts attach inside the grill body. Use the 9/64" hex wrench to fully tighten the screws.

## STEP 13

To install the tool hook onto the warmer box, use three 1/4"-20 x 1/2" screws, three 1/4" x 5/8" flat washers, and three 1/4"-20 lock nuts. Insert the screws into the predrilled holes on the front of the warmer box.

## STEP 14

Open the warmer box lid to place the internal components inside—place the grease tray inside first, and place the grate on top of the grease tray. Close the lid.

**STEP 15**

To install the small handles onto the pellet hopper lid, warmer box lid, and grease drawer, use two #6 x 3/8" screws and #6 x 3/8" lock washers per handle.

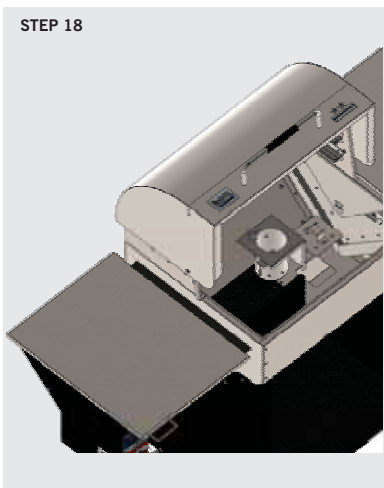
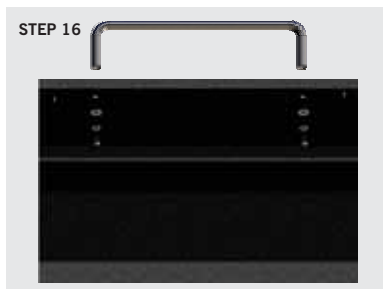
**STEP 16**

Attach the main lid handle with two 1/4"-20 x 1/2" screws, two 1/4" lock washers, and two 1/4" x 5/8" flat washers. Install the washers inside the lid, with the lock washer between the lid and the flat washer. To more easily slide the grip onto the handle before

installation, squeeze 2-3 drops of dish soap down the center. **WARNING!** This product contains a chemical known to the state of California to cause cancer.

**STEP 17**

The triangular grease shield goes inside the grill body on the right side. Place the clip on the grease shield toward the firepot and overlapping the grease shield flange. The top groove on the grease shield should be placed over the top edges of the "V" shaped flange closest to the firepot.

**STEP 18**

Place the ash cleanout cover over the hole between the firepot and grease shield.

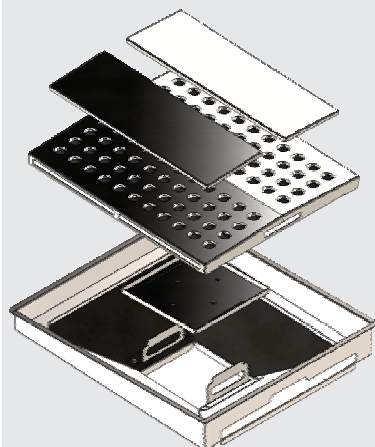
**STEP 19**

The grease drawer slides into the opening below the warmer box.

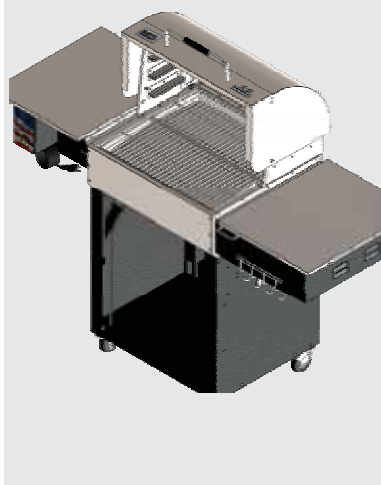
**STEP 20 - INSTALL THE FLAMEZONE**

1. Place the funnel grease tray on the lip around the inside of the cooking chamber. The lip below the slot on the right side of the tray fits over the top of the triangular grease shield. When properly installed, the grease tray slopes toward the right of the grill to channel grease into the grease drawer.
2. With the grease tray installed, place the square heat diffuser over the handles at the bottom of the grease tray. The embossed word "TOP" should be visible.
3. Place the FlameZone pan over the raised lip around the top of the grease tray.
4. The FlameZone covers fit over the front and back ports of the FlameZone pan. There will be a peak between the front and rear FlameZone covers. To grill, remove one or both covers for direct heat/indirect flame. For all other cooking methods (smoking, roasting, baking, etc.), leave the covers in place.
5. Place the split cooking grates horizontally into the top of the grease tray.

STEP 20



STEP 21

**STEP 21**

Place the split cooking grates on the extended lip running just below the interior edge of the grill. Each grate should sit side-to-side and level.



## Initial Burn-In

Once the grill is assembled, it will need to be seasoned before cooking on it. This process burns away excess oils left over from manufacturing, and prepares the internal surfaces for regular use.

### **INSTRUCTIONS ARE AS FOLLOWS:**

1. Fill hopper with cooking pellets. You received a 20 lb. bag of Bear Mountain hickory pellets with your grill—all of them will fit in the pellet hopper. Do not use fuel pellets.
2. Plug the power cord into a grounded 110v electrical outlet.
3. Press the ON/OFF button once; the LED display will light up.
4. Press the STAR button once; the word SMOKE will flash.
5. Use the UP or DOWN ARROW to adjust temperature to 450°F; press the STAR button again to set selected temperature.
6. Allow the grill to run for 30 minutes at 450°F with all internal components installed.
7. Press and hold the ON/OFF button until it enters COOLDOWN mode.

After your grill is seasoned, you are ready to cook! Please allow 30 minutes after shutting off the grill before turning it back on.

The first time you start your grill, it may take 10-20 minutes before the pellets are able to reach the firepot from the pellet hopper. If it takes too long for the pellets to reach the firepot, you may get a “FLAME OUT” message on your controller screen. If this occurs, restart the grill by turning it off completely, then press the ON/OFF button to resume the ignition sequence.

Your MAK Grill features the latest Pellet Boss firmware, designed to make starting your grill easy in cold weather.

MAK's FlashFire Igniter reaches over 2000°F in about fifteen seconds. It is located behind the firepot—the fan blows the intensely heated air into the firepot to quickly ignite the pellets. You should see smoke in less than one minute, and full fire in 2-3 minutes.

To shut the grill off after burn-in, press and hold ON/OFF until the words COOL DOWN appear. The Pellet Boss will go into cool-down mode for up to twenty minutes before the grill completely shuts off. Always wait at least 20 minutes after the grill has completely shut down before placing a cover on the grill. Never place a cover on a hot grill!

## **TO CHANGE THE PELLETS IN YOUR GRILL:**

1. Change pellets before starting the grill.
2. Place a bucket under the pellet dump door.
3. Turn the bezel on the pellet dump door counter-clockwise until you can pull the dump door open. The pellets will flow out the dump chute. You may need to push some of the pellets in the hopper through the door with your hands.
4. When hopper is empty, close the dump door and secure the bezel.
5. Fill the hopper with new pellets. Always use fresh, dry cooking pellets.

6. If you plan to store your grill for more than two weeks, empty the pellet hopper before storage. Also turn the auger to remove any remaining pellets from the auger tube (see instructions on page 59).

For best results, we recommend emptying the firepot after every 3-5 uses, or more often if you perform long-term “low 'n slow” cooking sessions. Before emptying your firepot, make sure the grill is completely cold. To empty the firepot, remove the cooking grates, FlameZone pan or drip pan, and heat diffuser. Remove the split ring attached to the firepot securing pin located on the left-hand side of the firepot. Slide the firepot to the right until free of the auger and igniter tubes, and lift out. Dump the pellet ash into a non-combustible container, then replace the firepot. Once it is correctly positioned, re-secure it with the pin.

Check the grease drawer regularly to ensure it does not overflow. To empty, carefully remove the drawer so as not to spill the contents. For easy cleanup, insert a disposable mini loaf pan in the drawer, pressing it into the form of the drawer. When the pan gets full, simply remove it and throw it away, and replace it with a new one.



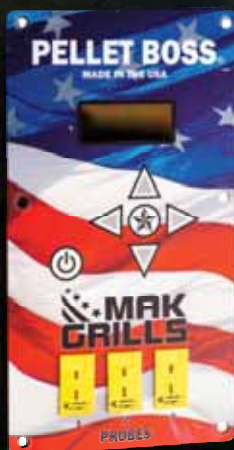
## IGNITION SEQUENCE

The sequence for “Igniting” is fan on at 100%, igniter on and auger on for 2 minutes 47 seconds. Auger then stops for 3 minutes 10 seconds. The auger will repeat this process until it switches to “GRILL” mode. Once Grill mode is achieved the igniter will turn off. The fan will decrease in speed, depending on the setpoint, one minute after the grill has reached its setpoint. Once the grill does switch over to “GRILL” mode the algorithm will determine how often the auger turns and for how long.

Remember: The ignition sequence is set up to start your grill as fast and reliably as possible—trying to bypass or jumpstart this sequence by turning the grill off and on will not make the grill light faster, and can cause undesirable effects.

## Pellet Boss

*The Pellet Boss controller is the brains of your grill. The three moving parts—the FlashFire igniter, the auger, and the fan—are all guided by the Pellet Boss. Understanding the Pellet Boss will help you get the most out of your MAK Grill.*



## USING THE PELLET BOSS

Six buttons control all the functions:



**ON/OFF**

Press once to turn grill on. If the grill is running, press and hold to enter **COOL DOWN MODE**. Press any button once after that to bypass the **COOL DOWN PHASE** and shut the grill off completely.



**STAR**

Press to select or set any temperature or function.



**UP ARROW**

**DOWN ARROW**

Adjust settings.



**RIGHT ARROW**

**LEFT ARROW**

Scroll through screens.



### TEMPERATURE/MEAT PROBE INPUTS

You may use up to three temperature/meat probes to monitor the internal temperature of your food. Plug the probe into any of the three meat probe inputs on the front of the Pellet Boss. Run the probe through the “mouse hole” on the front left side of the grill opening and insert the probe end into your food. The internal temperature of the food displays as PROBE 1, 2, or 3 depending on the selected input. NOTE: Keep the Pellet Boss out of prolonged direct sunlight to avoid damaging the Liquid Crystal Display (LCD).

**MANUAL MODE (IN CASE OF THERMOCOUPLE DAMAGE OR FAILURE)**

In the event of thermocouple failure, the grill will be unable to detect temperature. However, you can still operate your MAK in Manual Mode. This function lets you use your grill until a replacement thermocouple arrives.

Steps are as follows:

- To enable Manual Mode, press and hold STAR until the words MANUAL SMOKE flash.
- Press STAR again; the word SMOKE will flash.
- Use the UP ARROW to select SMOKE (175°F), LOW (225°F), MEDIUM (275°F), MEDHIGH (350°F), or GRILL (450+°F).
- Press STAR to select desired cooking temperature. The selected setting will stop flashing and the grill will adjust to and cook at the selected temperature.

**NOTE:** With no working thermocouple, the Pellet Boss will not display the grill temperature. To return to Normal Mode, press and hold STAR until the Pellet Boss reads SETPOINT SMOKE.

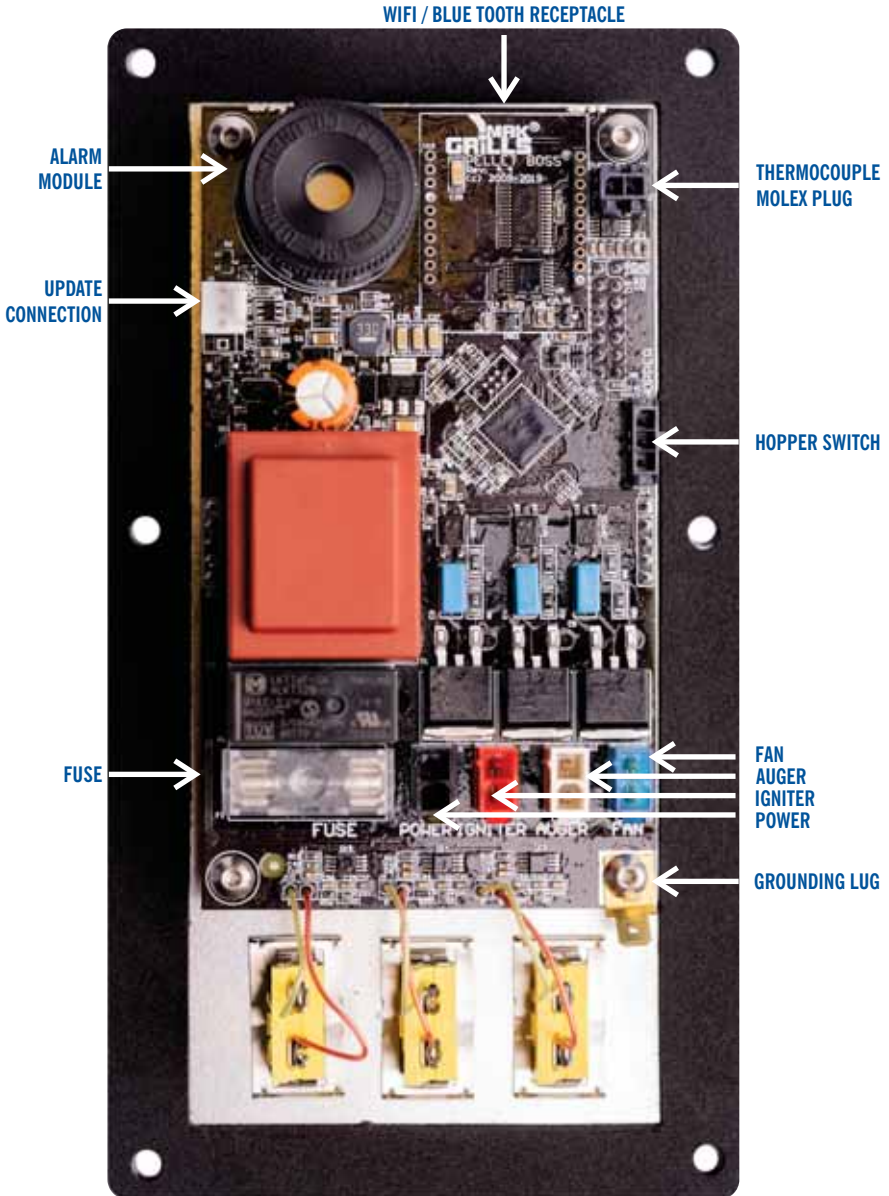
**FUSE HOLDER**

The fuse protects the Pellet Boss board when a component fails; it is located on the back side of the control board. Before accessing the fuse, unplug the grill. Remove the six screws from the front of the Pellet Boss. The fuse is located on the back left of the Pellet Boss and is protected by a clear plastic cover which must be removed to examine and access the fuse. Always replace with a fast-blow 4-amp fuse of the same length and diameter. (A spare fuse has been stapled to the inside back cover of this manual.)

**NOTE:** When removing the Pellet Boss from the grill, be careful not to unplug any connections on the back of the board.

## PELLET BOSS REAR VIEW

Familiarize yourself with each component and plug receptacle on the back of the Pellet Boss control board with this photograph. Should grill repairs ever be necessary, you will better understand where to locate and correctly plug in components. Always remove the Pellet Boss carefully to avoid pulling out any connections or plugs on the back of the control board.



## SCREEN DISPLAY DESCRIPTIONS AND SETTINGS

### SETPOINT SMOKE

#### Screen Display: SETPOINT TEMPERATURE

Displays internal temperature setting. Default setpoint is SMOKE— temperature holds between 170°F-190°F. Change setpoint in 5°F increments between 200°F and 450°F. Select setpoint GRILL for temperatures above 450°F; high temperature is governed at 600°F.

To adjust setpoint, press STAR; the screen will flash. Scroll UP to desired setpoint, and press STAR to select. When the grill reaches selected setpoint, an alarm sounds three times.

### GRILL 170F A

#### Screen Display: AUGER OPERATION ICON

An “A” in the righthand corner of the Pellet Boss readout indicates the auger is operating. When the auger is not moving, the “A” does not appear. The auger turns continuously when cooking at temperatures above 450°F, and stops when the pellet hopper lid is open. Operation resumes when the lid is closed.

### IGNITING 70F A

#### Screen Display: IGNITION

Indicates the grill is igniting. When the grill powers on it immediately enters an ignition sequence which ends when fire is established in the firepot.

### GRILL 170F A

#### Screen Display: GRILL

Shows the internal temperature of the grill. There are no user settings for this display.

**PROBE 1**  
**68F**

**Screen Display: PROBE 1, 2, and 3**

Shows the internal food temperature of each meat probe in use.

To add a probe alarm, press the right arrow till you reach PROBE 1. Press star; the word "OFF" will flash. Press up to select desired probe temperature, then press star. An alarm will sound when the probe reads the selected temperature. When any meat probe is set to alarm, a capital letter "A" will appear in the lower left of the Pellet Boss display.

**TIMER**  
**00:07:22**

**Screen Display: TIMER**

Set the timer to count down and alarm when it reaches zero. The timer resets to zero when the grill is turned off. There are three columns, one each (left to right) for hours, minutes and seconds.

To access the timer, press the right arrow until you reach TIMER. Press and hold star until the minutes flash. Use the up arrow to set the minutes between 01 and 59. Next, use the right arrow to select the hours; the numbers will flash. Use the up arrow to set the number of hours, then press star to accept. Press star to start the timer (you can also pause the timer by pushing star at any time during the countdown). When the timer reaches zero an alarm sounds and the Pellet Boss display flashes. To end the alarm, press any button on the Pellet Boss.

**ELAPSED**  
**00:00:10**

**Screen Display: ELAPSED TIMER**

Tracks the elapsed time of your cook. When activated, the timer counts up in hours and minutes.

Press the right arrow until you reach the ELAPSED TIMER screen. Press star to begin or end the elapsed timer. To reset to zero, press and hold star. When the grill is turned off, all timers reset to zero.

**USER 1  
OFF**

**USER 2  
OFF**

**USER 3  
OFF**

**Screen Display: USER 1, 2, or 3**

Up to three user programs can be preprogrammed. Setup and operation are the same procedure for each user program. Each user program includes up to five steps, with changes made automatically according to time or temperature.

Press right arrow until USER 1, 2, or 3 is reached. Press up arrow to reach SETUP. Press star; the word SETUP will flash. Press star again; the display will read STRT 1.1 SET:SMKE. Use up arrow to select initial internal cooking temperature; press star to accept. The display will read END1.1 SET: NONE. Use up arrow to choose the next step. Options are: NONE, TIME, or MEAT PROBE 1, 2, or 3. If you chose MEAT PROBE 1, 2, or 3, the MEAT PROBE display will flash; use up arrow to select desired internal temperature of your food; press star to accept.

If you chose TIME, the TIMER display will flash; use up arrow to select minutes and hours for grill to remain at initial cooking temperature (switch from minutes to hours using left arrow); press star to accept. Once you have input your MEAT PROBE temperature or TIME, press star once; display will read STRT 1.2 SET:SMKE. SMKE will flash; repeat the steps as outlined for STRT 1.1. Follow same procedure for 1.3, 1.4, and 1.5 if desired. To end program, set END 1.2 to NONE.

After setting up a USER program, the Pellet Boss display will read OFF. To use a program, press right arrow to reach USER 1, 2, or 3; press star; the word OFF will flash. Press up arrow to reach START; press star to accept; the program will run according to the parameters you set. To stop running the program, press right arrow to reach USER 1, 2, or 3; press star once.

Programs will not change unless you manually overwrite them. When a program is running, the screen displays either the progress of the sequence or the meat probe temperature. When a sequence change occurs, the Pellet Boss beeps three times and shows the new setpoint temperature for the program.

You can only run one user program at a time. Once a program has been set, it will stay that way until you change it.

## ALARMS & ALERTS

When set ALARMS are reached the Pellet Boss sounds a loud beep and the appropriate display screen flashes. Alarms sound for ten minutes, then shut off automatically. To deactivate an alarm, press any button on the Pellet Boss. There are ten distinct alarms on the Pellet Boss.

### TO SHUT OFF ALL AUDIBLE ALARMS ON THE PELLET BOSS:

- Press UP ARROW for ten seconds to reach the maintenance screen; “MAKGRILL VER 3.2” (or higher) will appear.
- Press RIGHT ARROW to reach ALARM ENABLED; press STAR.
- Press UP ARROW to reach SILENT; press STAR to select.
- Press and hold UP ARROW to exit the maintenance screen; press and hold UP ARROW to exit. The display screen will show the setpoint temperature.

**FIRE  
360F**

#### **FIRE ALARM:**

**The fire alarm sounds when the internal grill temperature is 100°F over setpoint for one minute. The Pellet Boss display reads FIRE ALARM.**

#### *What to Do:*

- **If there is a grease fire in the grill, immediately turn the unit completely off.**
- **Remove all food from the grill and shut the lid until the fire dies out.**
- **When the grease fire is out, restart the grill.**
- **Once it reaches setpoint temperature, replace the food and resume cooking.**
- **If the temperature is 100°F over setpoint and there is no grease fire, press any button to end the alarm. Open the grill lid for 2-5 minutes to release excess heat.**

**SETPOINT  
450F**

#### **SETPOINT ALERT:**

When the grill reaches setpoint, the Pellet Boss beeps three times.

*What to Do:* No steps required.

**FLAMEOUT  
65F**

**FLAME OUT ALARM:**

The flame out alarm sounds when the fire has died and cannot relight. The Pellet Boss display reads FLAMEOUT/FIREPOT.

***What to Do:***

Press any button to end the alarm. Remove all food from the grill. When the grill has cooled, remove the cooking grates, FlameZone pan or drip tray, and heat diffuser. Remove the firepot and dump contents into a non-combustible container. Replace the firepot and all interior components. Restart the grill, allow it to reach the setpoint temperature, replace the food, and resume cooking.

**TIME  
00:00:00**

**TIMER ALARM:**

The Pellet Boss beeps when the timer has been activated and reaches 00:00.

***What to Do:*** Press any button to end alarm.

**PWR FAIL  
10:28**

**POWER INTERRUPTION ALARM:**

The Pellet Boss beeps and the display screen reads POWER INTERRUPTION. This indicates electrical power to the grill has been interrupted by an outage.

***What to Do:***

- **Remove all food from the grill. and put it into the trash or refrigerator.**
- **Restart the grill and begin the cook over again.**
- **Or, take your chances and once the grill has reignited and come back to temperature, put the food back on and finish cooking it.**
- **Make sure that the internal temperature is above 140°F to avoid food poisoning.**

**USER 1  
OFF**

**USER 1, 2, OR 3 (COOKING PROGRAM):**

When a user program is in progress, the Pellet Boss beeps three times when the program advances to the next step.

***What to Do:*** No steps required.

**PWR FAIL  
10:28**

**POWER INTERRUPTION ALARM:**

The Pellet Boss beeps and the display screen reads POWER INTERRUPTION. This indicates electrical power to the grill has been interrupted by an outage.

***What to Do:***

- Remove all food from the grill. and put it into the trash or refrigerator.
- Restart the grill and begin the cook over again.
- Or, take your chances and once the grill has reignited and come back to temperature, put the food back on and finish cooking it.
- Make sure that the internal temperature is above 140°F to avoid food poisoning.

**WEB CTRL  
ON**

**WI-FI WEB CONTROL TIMEOUT:**

This alert only sounds when using MAK Grills Mobile. The display reads TIME OUT and the Pellet Boss beeps for ten minutes, or until the alarm is deactivated.

***What to Do:***

- Deactivate the alarm by pressing any button.
- Press RIGHT ARROW to reach the WEB CONTROL screen.
- Press STAR to select; WEB CONTROL will flash.
- Use UP ARROW to reach ON/ENABLE.
- Press STAR to accept.
- The grill should communicate with your router at this point. Login to [www.makgrillsmobile.com](http://www.makgrillsmobile.com) to confirm the grill is connected.

## PROBE 1 CHECK

### **MEAT PROBE ALARM(S):**

When a probe reads the programmed temperature, the Pellet Boss beeps and the appropriate PROBE screen flashes.

#### ***What to Do:***

Press any button to end the alarm. Check the temperature of the food to confirm it is at the desired temperature. If so, remove the probe from the food, then remove the food from the grill.

**MEAT PROBE ALERT(S):** There are three distinct meat probe alerts:

- **CHK:** Indicates the meat probe is not properly plugged in to the Pellet Boss.
- **LOW:** The probe reads the internal temperature of the food at 32°F or lower.
- **HIGH:** The probe reads the internal temperature of the food at above 225°F.

#### ***What to Do:***

- **CHK:** Ensure the probe plug is fully pushed into the input jack.
- **LOW:** The probe should read higher temperatures as the food cooks.
- **HIGH:** The internal food temperature is above 225°F, or the probe no longer works. Check the internal temperature with another probe or thermometer—if the temperature is lower than 225°F, the probe no longer works.

## ADDITIONAL DISPLAYS

### GRILL CHK TC

#### **CHECK TC:**

Displays when the Pellet Boss ceases to communicate with the internal thermocouple. This likely means the thermocouple is not plugged in or has come loose from the Pellet Boss.

#### ***What to Do:***

Remove the fan panel on the left side of the grill body. Locate the thermocouple connection on the upper right corner of the Pellet Boss (the cable is labeled “thermocouple”). Gently disconnect the thermocouple from the Pellet Boss, then reconnect it. Turn on the grill; the grill temperature and the outside ambient air temperature should be the same. If the error persists, refer to “Manual Mode” instructions below, and contact MAK Grills Support for further assistance.

### HOPPER OPEN

#### **HOPPER OPEN:**

Displays when the pellet hopper door is open or not fully engaged with the auger stop switch. The Pellet Boss display reads HOPPER OPEN.

#### ***What to Do:***

Close the hopper lid. If the Pellet Boss still reads HOPPER OPEN, ensure the auger stop switch on the left side of the pellet hopper and the magnet attached to the hopper lid are aligned. If the problem persists, remove the fan panel and unplug the auger stop switch from the back of the Pellet Boss (Page 34).

### IGNITING 70F A

#### **IGNITING:**

Displays while igniter is operating. Once the igniter turns off, the Pellet Boss display shows the grill temperature.

#### ***What to Do:***

No user settings for this feature.

**COOLDOWN**  
**19:42**

### **COOL & SHUT DOWN**

Displays when ON/OFF is pressed to turn grill OFF. The fan will continue to blow to help burn out the remaining pellets and to cool down the grill. The cool down sequence is twenty minutes or less, depending on the internal temperature of the grill. When the sequence ends, the grill shuts off completely.

#### ***What to Do:***

No user settings for this feature. To override the cool down cycle in case of emergency, press any button on the Pellet Boss—the grill will shut off immediately. However, under normal operating conditions, it is recommended to allow the grill to complete the full cool down cycle.”

**When you purchase a MAK,  
you directly support American engineering,  
construction, and employment.  
In return, you receive an outstanding product  
designed to the highest standards for a  
lifetime of wood-fire flavored family meals.**





## **Cleaning & Maintenance**

*These cleaning tips are meant to keep your MAK Grill looking and operating correctly for as long as possible. Always let the grill cool completely before cleaning.*

## **EXTERIOR CLEANING**

### **FAN PANEL**

Use a wet/dry vacuum to clean the airholes. For deeper cleaning, remove the panel from the grill and wash it with soap and hot water; rinse and dry before reattaching.

### **GRILL LID**

Clean the bottom edge and inside with mild dish soap and hot water. If necessary, detach the lid to clean more thoroughly.

### **PELLET BOSS**

Use a damp cloth and mild dish soap to remove grease and dirt. Keep soap and water out of the meat probe inputs. Wipe dry with a soft towel.

### **PELLET HOPPER**

Remove pellet dust by sweeping or vacuuming the hopper and auger tube.

### **POWDER COAT**

Clean the powder coat with mild dish soap and hot water. If residue does not easily remove, use a scrub pad lightly on the affected area. Wipe clean with a damp cloth and dry with a soft towel.

### **TWO-STAR GENERAL STAINLESS STEEL**

To prevent the steel from discoloring, wipe down the grill lid before every cook (front and back) with a damp paper towel. To remove grease, use a biodegradable degreaser. For severe smoke discoloration, use a liquid degreaser.



## INTERIOR CLEANING

### ASH CLEAN OUT

When sufficient pellet ash accumulates in the bottom of the grill, remove the square ash clean out cover and brush the ash through the square opening. The ash will fall into the grease drawer on the bottom right of the grill body.

### COOKING CHAMBER

Use a general all-purpose degreaser to remove grease or other debris. Once the grill surface is clean, wipe with a damp wrung out cloth, making sure to remove all degreaser residue. Air dry, or dry with a soft towel.

### COOKING GRATES

Remove grates from grill and wash with hot water and dish soap; dry thoroughly before replacing. For very dirty grates, use a bristle-free brush to remove food remnants; follow by wiping with a dry paper towel.

## **FIREPOT**

With grill completely cool, remove the firepot. Dump ash into a fireproof container and replace firepot. For best results, empty firepot every 3-5 uses.

## **HEAT DIFFUSER**

Remove accumulated ash as needed. No other cleaning is necessary.

## **GREASE DRAWER**

Check regularly for grease accumulation. DO NOT allow it to overflow. (For easy cleanup, press a mini aluminum loaf pan into the drawer.) When the drawer is full, carefully remove it from the cooled grill. Dispose of grease ethically. Wipe the empty drawer with a dry paper towel.

## **GREASE SHIELD**

Soak in hot, soapy water. Rub with steel wool as needed. Rinse thoroughly and dry with a soft towel.

## **THERMOCOUPLE**

It is essential for proper temperature control of your grill to keep the thermocouple clean. Use damp medium coarse steel wool to remove smoke and debris from the thermocouple. DO NOT bend or break the thermocouple—pull out roaming thermocouple for ease of access.

## **TWO-STAR GENERAL GREASE PAN**

Use a bristle-free brush or putty knife to clean the grease channel as often as necessary to maintain smooth runoff.

## **TWO-STAR GENERAL WARMER/SMOKER BOX**

Remove the grate and grease tray and soak in hot water and ammonia. Remove debris, then rinse in running water and wipe dry. Wipe all interior surfaces with a sponge and hot soapy water. Dry with a soft towel.

## CLEANING EXHAUST LOUVERS

- **Proper air flow is crucial to ensure your MAK GRILL operates at optimum levels.** Clean all louvers inside and out at least once every 6 months. If you frequently cook greasy or expensive cuts of meat, increase that to once every 3 months or less.
- Use mild dish soap and hot water to clean the louvers. Use a scouring pad or butter knife to remove all debris. Each set of louvers at the back of the cooking chamber and leading from the pit to the smoker box (on the Two-Star General only) need to be cleaned.
- Then take a damp cloth and wipe each louver thoroughly to remove soap residue.
- NOTE: To access the warmer/smoker box louvers, remove FlameZone pan and triangular grease shield. Open the smoker box lid to clean the louvers on both sides of the box.



## RECOMMENDED CLEANING SCHEDULE

### WEEKLY

**EXTERIOR** Clean Grill Finish  
Grill Shelves

**INTERIOR** Firepot

### MONTHLY

**EXTERIOR** Louvers  
Grease Chute

**INTERIOR** Grease Pan  
Quick Change Grease Pan  
Cooking Chamber

### ONCE PER QUARTER

**EXTERIOR** Clean Pellet Hopper  
Warmer / Smoker Box

**INTERIOR** Grease Shield

### TWICE A YEAR

**EXTERIOR** Clean Fan Panel

**INTERIOR** Heat Diffuser

### ANNUALLY

**EXTERIOR** Inside of Lid

### AS NEEDED

**EXTERIOR** Pellet Hopper  
Grill Lid  
Stainless Steel

**INTERIOR** Cooking Grates  
Thermocouple  
Upper Grill Slides

## CARE & CLEANING OF STAINLESS STEEL

- For a very dirty grill use a white or pink nylon scouring pad, applying firm pressure to dislodge all debris. Wipe the cleaned areas with a damp cloth and dry with a soft towel.
- If the grill is stained with grease, sauce or food drippings, wait until the grill is completely cold before cleaning it. Start with mild dish soap and hot water. If that isn't strong enough, use a degreaser. After cleaning, wipe with a damp cloth and dry with a soft towel.
- NOTE: **Many degreasers are caustic and will damage powder coat applications.** Only use caustic degreaser on your grill's stainless-steel surfaces. If the manufacturer recommends wearing gloves when using their product, it's probably caustic. **We do not recommend using oven cleaner on grill surfaces.**

## WINTERIZING YOUR GRILL

If your MAK will be unused for an extended time, empty the pellet hopper, auger tube, and firepot of all pellets to prevent them from absorbing ambient moisture and jamming the auger.

Use the pellet hopper dump door to empty the hopper. To empty the auger tube, access the Maintenance Screen on the Pellet Boss, turn off the fan and igniter, and run the auger to clear all pellets from the auger tube (see instructions on page 59).

**When you are ready to use the grill again, follow the start-up procedure found on pages 27-29.**

## CLEANING TIPS

- Always wait for the grill to cool completely before removing internal components. This includes the cooking grates, FlameZone pan, heat diffuser lid, grease tray, firepot, ash clean out cover, or triangular grease shield. Handling hot grill components can lead to serious burns.
- Keep the smoke ports in the grease pan tray clean and clear of any obstructions. When covering the FlameZone pan with aluminum foil, keep clear of ports to maintain airflow.
- Regularly use a putty knife to scrape the channels on the front and back of the FlameZone pan to ensure grease flow and drainage.
- Use hot soapy water for routine cleaning. For heavy-duty cleaning, use degreaser and a stiff bristle-free brush to remove food, grease, and smoke from the grates, FlameZone covers, pan, and grease tray.
- After washing and rinsing, let components dry before replacing them in the grill.

An extensive FAQ on the MAK Grills website contains additional troubleshooting information. For anything not covered in this manual, call us at (503) 623-1234 Monday-Friday 8am-5pm PST, or email us at: [support@makgrills.com](mailto:support@makgrills.com)

*Should you experience an interruption in the proper operation of your grill, please consult this troubleshooting guide before contacting MAK Grills.*

*An extensive FAQ on the MAK Grills website contains additional troubleshooting information.*



*If you cannot find a resolution or if the issue is not addressed, call us at (503) 623-1234, or email [support@makgrills.com](mailto:support@makgrills.com). Our office hours are Monday-Friday 8am to 5pm PST.*

## TROUBLESHOOTING & REPAIRS

**ALWAYS unplug your grill and allow it to cool completely before attempting service or repairs.**

Support videos are available on the MAK Grills website, [www.makgrills.com](http://www.makgrills.com), to guide you step-by-step through common operations.

### DISPLAY WILL NOT TURN ON

***Cause: Indicates failure of GFCI outlet or Pellet Boss controller.***

- Ensure the unit is plugged in to a working grounded 110-volt electrical outlet.
- If it is, check the GFCI to see if it has tripped.
- If using an extension cord, unplug it and plug the grill directly into a standard electrical outlet. If you cannot plug your grill directly into an outlet, use only a 12-gauge grounded extension cord.

### MY PELLETT BOSS DISPLAY IS NO LONGER READABLE

***Cause: Indicates contrast needs adjustment, or that Pellet Boss controller has failed.***

- To adjust the contrast on the Pellet Boss, turn your grill on.
- Press and hold UP ARROW until you see the words “MAK GRILL VER 3.44” (or higher).
- Press RIGHT ARROW once.
- Press STAR once; the contrast number will flash.
- Press UP ARROW to adjust to the desired contrast number.
- When the display is readable, press STAR once to accept.
- Press UP ARROW to return to the default SETPOINT SMOKE setting.
- Turn off grill, or adjust the setpoint temperature to begin cooking.
- If adjusting the contrast does not make the Pellet Boss display readable, please contact MAK GRILLS for further assistance.

## GRILL DOES NOT LIGHT AND DISPLAY READS “FLAME OUT, CHECK FIREPOT AND HOPPER”

- Indicates the hopper has run out of pellets, or that excessive ash in the firepot is covering the igniter and keeping the pellets from lighting.
- Press any button to end the alarm.
- Remove all ash from the firepot. Wait till the grill is completely cold before doing this.
- Unplug the grill before accessing the back of the Pellet Boss or any electrical component.

## GRILL STILL DOES NOT LIGHT

- If cleaning the firepot does not resolve the issue, remove the fan panel.
- Unplug the IGNITER wire from the red connector on the back of the Pellet Boss and plug it back in. Ensure the connection is secure.
- Be sure pellets are entering the firepot. If the auger is not turning, check the white auger connection on the back of the Pellet Boss.
- Be sure the fan works. If it does not, check the fuse on the back of the Pellet Boss. If the fuse is blown, the fan, auger and igniter will not operate.
- Replace the 4-amp fuse. A backup fuse is attached to the inside back cover of this manual.
- If the fuse blows, the fan, auger motor, or igniter has likely failed. Contact MAK GRILLS Service for assistance.

## MY GFCI CIRCUIT KEEPS TRIPPING

**Cause:** *Indicates your igniter is failing.*

- Turn off your igniter (see instructions page 59).
- Contact MAK Grills for a replacement igniter.
- Follow “Manual Lighting Procedure” while awaiting new igniter.

## MANUAL LIGHTING INSTRUCTIONS

If your igniter fails, you can still start your grill:

- Empty the firepot completely.
- Place a half cup of new pellets in the firepot.
- Pour two tablespoons of hand sanitizer over the pellets and stir.
- Drop in a lighted match onto the pellets.
- Wait five minutes for the fire to establish.
- Carefully replace all interior components. Avoid the fire, don't get burned.
- Turn the grill on and cook as normal.
- Contact MAK Grills for a replacement igniter.

## FAN DOES NOT RUN

**Cause:** *Indicates fan blades are obstructed, fuse has blown, or fan has failed.*

- The fan should run whenever the grill is on.
- If it does not, unplug the grill and remove the fan panel.
- Unplug the FAN wire into the blue receptacle; be sure the connection is secure.
- Check fan blades for obstructions such as pellets or rocks. Remove debris.
- Check the fuse on the back of the Pellet Boss. If it is blown, replace it with a 4-amp fuse.

## AUGER IS NOT TURNING

**Cause:** *Indicates auger is jammed or has failed.*

- The auger works on a timed interval basis depending on the temperature setting on the Pellet Boss. During start-up the auger will run for approximately three minutes. It then may shut off for a specified period of time depending on the temperature reading inside the grill, then continue to run again.
- Empty the pellet hopper to see if your pellets have been exposed to moisture. If they have absorbed moisture or water, they will swell and jam your auger.

- Check to make sure that no foreign objects (dirt, rocks, etc.) have fallen into the pellet hopper. Remove any foreign objects if necessary.
- If the pellets have jammed your auger, you will need to remove the auger and clean it and the auger tube out. This can be done by removing pellets from the hopper and by removing the firepot.
- Use a shop vac to suck-out as many of the pellets from each end of the auger tube.
- Remove the fan/access panel from the grill body.
- Unplug the auger from the Pellet Boss. Remove the two auger mounting screws from the rear of the auger motor. Do NOT remove the two black star screws. Just the screws BELOW the motor located on the left and right side of the auger motor.
- Remove the four auger bracket screws from the front and back side of the hopper.
- Once the auger bracket is removed, twist the auger motor counter clockwise to essentially unscrew it from the auger tube.
- Once the auger has been freed, clean the auger, auger tube and surrounding areas of any remaining pellet material.
- Replace auger in reverse order. Plug it back into the WHITE receptacle on the back of the Pellet Boss, turn on the grill and see if the auger runs. Do this before adding new pellets to the hopper and allowing the auger tube to once again fill with pellets.
- If the auger works; place the firepot back into position, reattach the fan/access panel, fill the hopper with pellets. Plug the grill back into electrical power and turn the grill on.

**NOTE: Never put spilled pellets from the ground back into your pellet hopper.**

**NOTE: If the auger still does not operate, call MAK GRILLS Service for additional help.**

## **GRILL IS NOT GENERATING AS MUCH SMOKE AS BEFORE**

- Empty out the firepot so that it is completely clean.
- Clean the louvers in the back of the grill—both inside and out. Do the same with the louvers going into and out of the Warmer/Smoker box.
- Clean thermocouple.
- Try using a fresh bag of barbecue pellets.

## **GRILL DOES NOT GET AS HOT AS BEFORE**

There are several reasons why this may be happening:

- Dirty thermocouple: (located in the back left-hand corner of the main cooking chamber). Take a piece of moistened steel wool and clean the thermocouple all the way around, up and down so that it looks brand new.
- Clogged exhaust louvers: Clean the exhaust vents on the back wall of the cooking chamber. Clean the exterior louvers as well as those in the Warmer/Smoker box.
- Damp Pellets: Try a fresh bag of pellets.
- Change the brand and variety of pellets you are using. Fruitwood and Alder pellets have lower BTU's. Hickory, Oak and Mesquite pellets burn the hottest.

## **PELLET BOSS DISPLAY SAYS HOPPER OPEN-AUGER IS NOT TURNING**

- This is a safety feature in our grills.
- First, insure that the pellet hopper lid is closed.
- If the Pellet Boss continues to display the HOPPER OPEN message, check the magnet connection found inside the far left lip of the hopper lid. Make sure that it is aligned with the magnet on the inside of the pellet hopper body.
- If the situation persist, you can override this feature by removing the fan/access panel and disconnecting the connection to the HOPPER SWITCH found on the back ride side of the Pellet Boss board. This will completely disengage this feature.
- Contact MAK Grills Service for additional assistance.

## TURNING COMPONENTS ON OR OFF USING THE PELLET BOSS

Periodically you may need to turn a component off in order to perform repair or testing. Instead of having to manually unplug the components from the back of the Pellet Boss, you can now turn them on or off using settings in the maintenance screen.

**NOTE: If you make any changes to the operation of these components, you must manually restore them to their default settings AA, FA and IA.**

- To access the maintenance screen, turn the grill on and press and hold the UP button until MAK GRILL VER 3.0 or higher is displayed. Use the RIGHT button to advance the screen until you reach SERVICE.
- You will see three pairs of letters; AA, FA, IA (AUGER/AUTO, FAN/AUTO, IGNITER/AUTO). The default settings are all “A” (for Auto where the components will run automatically).
- To turn a component on or off, push the STAR button once. The “A” for AUTO will begin to flash. Use the UP or DOWN button to select “O” which indicates OFF or “1” which indicates ON.

**Example: If you wanted to clear out your auger of pellets because you will not be using your grill for an extended period of time:**

- Press the UP arrow button until MAK GRILL VER 3.0 (or higher) is displayed.
- Press the LEFT arrow button to get to the SERVICE screen.
- Press the STAR button. The second “A” of “AA” will begin flashing.
- Press the UP or DOWN arrow button until you see “1” displayed.

**Once the auger has been cleared of pellets, go back to the SERVICE screen and restore all of the components back to AA, FA, IA to ensure that the grill components will work automatically as they are intended to.**

When this is done, press and hold the up button for three seconds to exit the maintenance screen. The Pellet Boss will return to the SETPOINT SMOKE (default) screen.



<b>TEMPERATURE GUIDE</b> . . . . .	<b>60</b>
<b>TIPS &amp; TRICKS</b> . . . . .	<b>61</b>
<b>COOKING METHODS</b> . . . . .	<b>62</b>
<b>COLD &amp; HOT WEATHER TIPS</b> . . . . .	<b>63</b>
<b>RUBS &amp; SAUCES</b> . . . . .	<b>64</b>



## TEMPERATURE GUIDE

FOOD	TYPE	INTERNAL TEMPERATURE (°F)
Ground meat / meat mixtures	Beef, pork, veal, lamb	160°
Ground meat / meat mixtures	Turkey, chicken	165°
Fresh beef, veal, lamb	Steaks, roasts, chops	145°, rest for 3 minutes
Poultry	Pieces, whole bird, stuffing	165°
Pork and ham	Fresh pork, including fresh ham	145°, rest for 3 minutes
Pork and ham	Precooked ham (to reheat)	165°
Eggs and egg dishes	Frittata, quiche, etc.	160°
Leftovers and casseroles	Leftovers and casseroles	165°
Seafood	Fish with fins	145° or until flesh is opaque & separates easily with a fork
Seafood	Shrimp, lobster, crab, scallops	Cook until flesh is pearly or white, and opaque
Seafood	Clams, oysters, mussels	Cook until shells open

## TIPS & TRICKS

Mastering the art of cooking with real wood smoke takes years of experimentation and practice to make perfect. The MAK takes a lot of the guesswork out of the equation, and frees you up to work on your special secret sauce, your hidden weapon rub, or just to spend time with family and friends. Here are a few tips and tricks to maximize your MAK time.

- Smoke incinerates at about 300°F. For maximum smoke flavor, set your grill for lower temperature settings. Our “Smoke Mode,” which holds the internal grill temperature between 170°F-190°F, disrupts the flame in your firepot to alternately smother and stoke it for the most voluminous smoke output.
- Always maintain maximum airflow. This means not covering any vents, airflow channels, or grease collection areas with aluminum foil, pans, butcher paper, or other cooking apparatus. It also means keeping your grill clean—follow the schedule on page 50.
- Allow for variances in outside temperatures and weather conditions. If it's -35°F outside, it will take longer to bring your grill up to temp, and will be harder to maintain hotter temperatures over long periods of time. Rain and snow can also affect the internal ambient temperature of your grill. On the other end of the spectrum, very hot weather can limit your ability to cold smoke, as the sun radiating off the grill will naturally raise the internal temperature above what is necessary for cold smoking.
- Make sure your grill is level. A pellet grill is essentially a metal box with some electrical components, and to keep those components in top condition keep them upright at all times.
- If you've left your grill unused for a long period of time, be sure to start it up before your first cook to make sure everything is operating as expected and that the auger isn't jammed with hardened pellets.

## COOKING METHODS

There are a few terms you will encounter often as you continue to learn about and research the best outdoor cooking recipes and methods. Here's a short glossary:

### BARBECUING

Barbecue is a cooking method used to cook larger, tougher cuts of meat like pork shoulder or butt, beef brisket, ribs, and roasts. Normal barbecue temperatures are between 225°F-275°F. While barbecue is often seen as a specifically American tradition, people have been using similar methods to cook for millennia all around the globe. Also called “low and slow.”

### GRILLING

Grilling is a cooking method in which direct heat is applied to food to cook it rapidly. Normal grilling temperatures are 400°F+; the high heat sears the outside of the meat to create a crust. Steaks, hamburgers, sausages, chops, and vegetables are typical grilled foods. Also known as “hot and fast.”

### SMOKING

Smoking is a way to cook and/or preserve meat by using hardwood smoke to cook at temperatures between 170°F-200°F. Also known as “hot smoking,” this method often precedes grilling or barbecuing in order to lock in as much smoke flavor as possible.

***Cold smoking*** is similar to hot smoking, but is conducted at much lower temperatures, typically between 70°F-100°F. This is usually used to impart a smoke flavor to more delicate foods that do not require to be cooked thoroughly, such as nuts, cheese, vegetables, fruit, salt, sugar, etc. Cold smoking is also used to cook brined fish, but this is potentially dangerous and best left to professionals. The warmer/smoker box on the Two-Star General Grill allows you to cold smoke by holding temperatures around 100°F lower than what they are in the main cooking chamber.



## COLD & HOT WEATHER COOKING TIPS

MAK Grills are designed to operate consistently year-round. However, extreme weather conditions, both hot and cold, can affect time-to-temp and overall cooking time.

In cold weather, start your grill earlier than you normally would in order to reach your setpoint by the time you want to put your food on the grill. For fastest heat-up time, start on GRILL for ten minutes before adjusting the Pellet Boss controller to your desired setpoint.

Cooking often takes longer in cold weather as well, especially for larger cuts of meat. Add additional cooking time to your plans to compensate accordingly.

Moving your MAK Grill into an area sheltered from wind and precipitation will help mitigate the effects of winter weather. Always be sure, however, to cook in a well-ventilated area; never cook in an enclosed space or in an area without adequate ventilation.

In hot weather, food tends to cook more quickly. To avoid overcooking your food, it is best to reduce your cooking temperature, except in the case of high-heat grilling.



## RUBS & SAUCES

You received one bottle of rub and one bottle of sauce with your MAK Grill. Rubs are typically applied to food before placing it on the grill, and sauces are typically applied near the end of a cook. The following guide offers some suggestions for best results.

- Don't be shy when it comes to adding rub! Use more than you think you need, and then a little extra. Some will come off between the kitchen counter and your grill, and you want enough to form that flavor-packed crust BBQ aficionados love.
- When using a salt-based rub, don't salt or brine your meat beforehand. You'll over-salt the food and it will be nearly inedible.
- Sweeter flavors typically work best with pork and chicken, while beef, turkey, and fish are better suited to savory and salty flavors.
- Apply sauce near the end of the cook—it's not supposed to be the main flavor, only to enhance the flavors already present.

## RUBS

### **BIRD RUB**

Best on game and poultry birds, including turkey, chicken, pheasant, quail, and Cornish hens.

### **CAJUN RUB**

Add some heat and body to jambalaya, shrimp, or gumbo. Makes a great crust on catfish.

### **CHIPOTLE RUB**

A great go-to rub for chicken, shellfish, and hamburgers.

### **FISH RUB**

Delicate citrus flavors will permeate your seafood and fish. Also great on popcorn!

### **MESQUITE RUB**

A robust savory rub that will make your beef cuts the talk of the neighborhood.

### **SWEET RUB**

Sweet and savory, this is the perfect rub for all your pork, from ribs to shoulder to chops.





## SAUCES

### **DEVIL'S PUNCH SAUCE**

Hot as Hades! This molten liquid will bring tears of repentance to your eyes.

### **HICKORY SAUCE**

A tomato-based sauce that offers the perfect Texas flavor to steak, roast, and chops.

### **HONEY BOURBON SAUCE**

The sweetness of honey with the kick of bourbon imparts full-bodied flavor to any cut of meat.

### **HONEY STINGER SAUCE**

Sweet honey and spicy jalapeno get married and produce the best flavor imaginable. Works on chicken, pork, and beef.

### **RUM SAUCE**

Ideal as a marinade for chicken and pork. Very rich, with a hint of sweet.

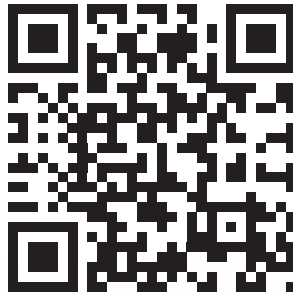
### **WHISKEY SAUCE**

A savory sauce with a hint of spice and deep tomato flavor, ideal for beef short ribs.

## RECIPES

*Recipes, cooking tips and tricks  
from the MAK family!*

<http://makgrills.com/recipes-tips>  
or scan QR code.



*Increase your capacity and versatility  
with MAK accessories!*

<http://makgrills.com/accessories>  
or scan QR code.



# Stay in Touch

If you've made it this far, you're ready to start cooking on your new MAK Grill. We'd love to hear about your experiences! Feel free to reach out anytime — we're always eager to hear what our MAK Family is cooking, how they're doing it, and what tips they can share for making a better outdoor cooked meal.

We can be reached by phone Monday - Friday  
8am to 5pm PST  
503-623-1234

For written sales enquiries, please contact us at  
[sales@makgrills.com](mailto:sales@makgrills.com)

For written service and support requests,  
please email [support@makgrills.com](mailto:support@makgrills.com)

Welcome again to the MAK Family,  
and happy cooking!

**Give us a shout!**  
**We love to hear from our MAK family.**

<https://makgrills.com/contact>



