

★ **YS** ★

YS640 

OPERATION MANUAL

 **SERIES**[®]

★ **YODER SMOKERS** ★

S SERIES[®]

★ **YODER SMOKERS** ★

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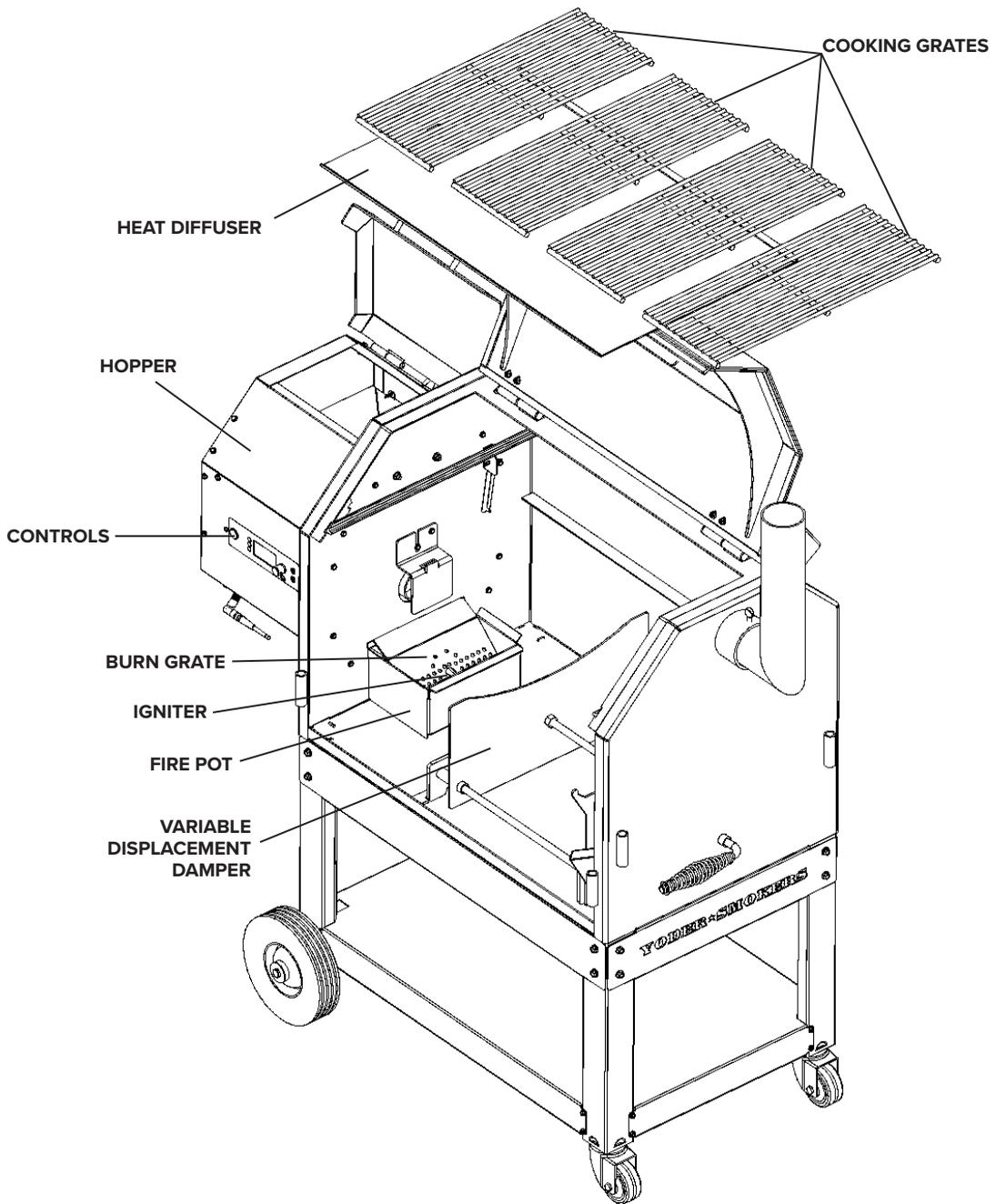


DANGERS, WARNINGS AND CAUTIONS



- Failure to follow the “Dangers, Warnings and Cautions” may result in serious bodily injury, death, or fire.
- Read this manual completely before using your Yoder for the first time.
- Keep the grill a minimum of 18 inches away from combustible surfaces.
- The cooking chamber door must remain closed during the cool-down cycle. Failure to do so can cause burn back in the hopper.
- Do not modify the holes in the burn grate.
- Do not add pellets by hand to the burn grate when the grill is in use.
- Do not use your grill in the rain or around any source of water.
- Do not leave your grill unattended during operation.
- Close supervision is necessary when any appliance is used by or near children.
- Do not transport your grill while operating or when the grill is hot. Make sure the fire is out and the grill is cool before moving.
- Extreme caution must be used when moving an appliance containing hot oil or other hot liquids.
- Exterior surfaces on the grill will be hot when in use and during cool down.
- Unplug from outlet when not in use and before cleaning.
- Allow to cool before putting on or taking off parts, or before performing any routine service or maintenance.
- Should a grease fire occur, turn the controller to the “off” position and unplug the unit to stop the fans. Keep the lid closed until the fire is out.
- If the Yoder fails to initially light after pressing the START button, or goes out during operation (due to a power surge or power failure), do not restart the Yoder without removing the cooking grates and heat diffuser/drip plate to check for a pellet overflow that may have occurred.
- Do not store the grill cover or other flammable items under or near the grill.
- After a period of non-use, the hopper, auger and firepot must be inspected for obstruction.
- Do not touch hot surfaces. Use handles or knobs, and wear heat resistant gloves when operating the grill.

- If your grill is stored outside, care should be taken to assure that water does not enter the pellet hopper. (The use of a grill cover is highly recommended).
- When you are finished cooking, turn the power switch to the “off” position. The fan will continue to run for 18 minutes or until the temperature inside the cooking chamber falls below 125° F, whichever occurs first. During this period the cooking chamber door must remain closed. Failure to do so can cause burn back in the hopper.
- Longer detachable power-supply cord or extension cords are available and may be used if care is exercised in their use. If a longer detachable power-supply cord or extension cord is used:
 - a) The marked electrical rating of the cord set or extension cord should be at least as great as the electrical rating of the appliance (2 amps).
 - b) The cord should be arranged so that it will not drape over the countertop or table where it can be pulled on by children, tripped over unintentionally, or contact hot surfaces.
- **Caution:** Risk of Electric Shock. Keep extension cord connection dry and off the ground. Do not immerse cord or plugs in water or other liquid.
- **Caution:** To ensure continued protection against risk of electric shock, connect to properly grounded outlets only.
- Outdoor extension cords should be used with outdoor use products and are surface marked with the suffix letter “W” and with a tag stating “Suitable for use with outdoor appliances.”
- Do not operate any appliance with a damaged cord or plug, or after the appliance malfunctions or has been damaged in any manner. Return appliance to the nearest authorized service facility for examination, repair, or adjustment.
- Always attach plug to appliance first, then plug cord into the wall outlet. To disconnect, turn any control to “off”, then remove plug from wall outlet.
- The use of accessory attachments not recommended by the appliance manufacturer may cause injuries.
- Store product indoors when not in use if possible – out of the reach of children.
- Do not clean this product with a water spray or the like.
- Do not place on or near a hot gas or electric burner, or in a heated oven.
- For household use only.
- Do not use appliance for other than intended use.
- Check www.YoderSmokers.com occasionally for updates and new product information.



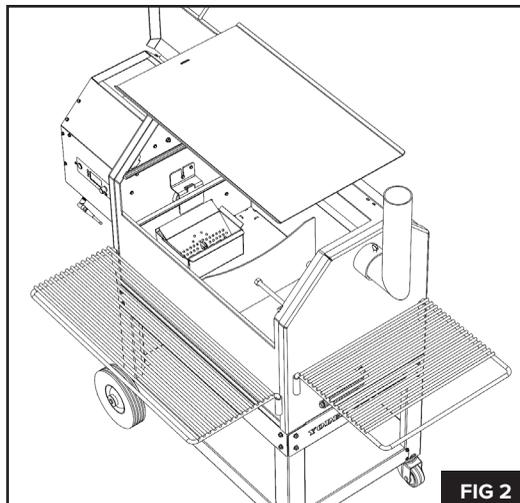
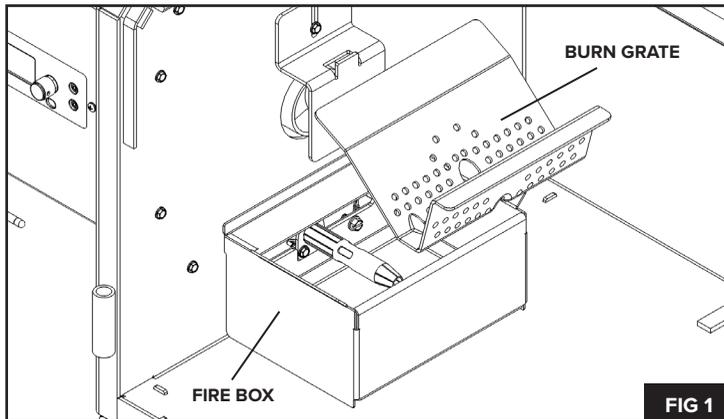
SMOKER ASSEMBLY

SMOKER ARRIVAL

Your Yoder Smoker will arrive boxed and ready to assemble. Please follow the assembly instructions. If you purchased the competition cart, then it arrived on a pallet wrapped, and held on with bands. Cut the bands and remove the plastic wrap and foam from the smoker. Remove the smoker from the pallet. It is recommended that two people remove the Yoder from the pallet due to its size and weight. Open the hopper lid and remove the grease bucket that contains the power cord and a spare fuse and set aside. Open the cooking chamber and remove all of the wrapped components. There will be a front shelf, a side shelf, four cooking grates, a heat diffuser plate, burn grate, and smoke stack.

NOTE: *If pellets were ordered, they will be in the cooking chamber as well.*

Assembly of your new Yoder starts by installing the burn grate inside the firebox (**FIG 1**). Install the heat diffuser plate and smoke stack next (**FIG 2**). The smoke stack installs flush to the inside of the cooking chamber with the long leg pointed straight up. Tighten the thumb screw securely.



Place the cooking grates inside the cooking chamber. **(FIG 3)**



Attach the front and side shelves to the Yoder. **(FIG 4)**



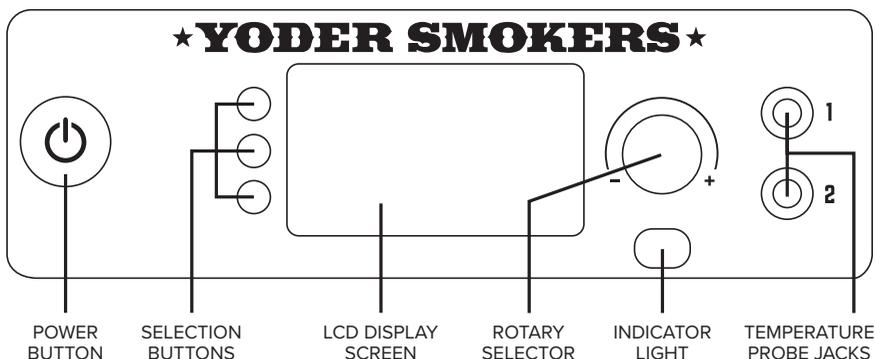
Use the side shelf to assist in moving the Yoder into position. It is recommended that two people move the Yoder due to its size and weight. Once in position, follow the setup instructions (Page 30) to prepare your new cooker for use.



QUICK START GUIDE

SECTION 1.A

CONTROLLER LAYOUT



POWER BUTTON – Powers the grill on and off. Once the grill is turned on, and a fire has started, pressing the power button to turn the unit off will initiate shut down mode. This mode allows the fans to continue running to ensure a safe, full burn of any pellets left in the firepot. The unit will turn off once the grill reaches 125°F or runs for 18 minutes, whichever occurs first.

SELECTION BUTTONS – These buttons are used to make selections throughout the menu.

LCD DISPLAY SCREEN – Displays all content.

ROTARY SELECTOR – Allows you to navigate the menu by rotating the knob and also allows you to make selections or switch between options by pressing in on the knob.

INDICATOR LIGHT – Lit when power to the unit is on, and when the grill is in shut down mode.

TEMPERATURE PROBE JACKS – Plug in your temperature probes to be able to view food temperature on the display screen.

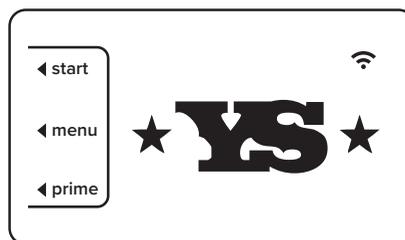
SECTION 1.B

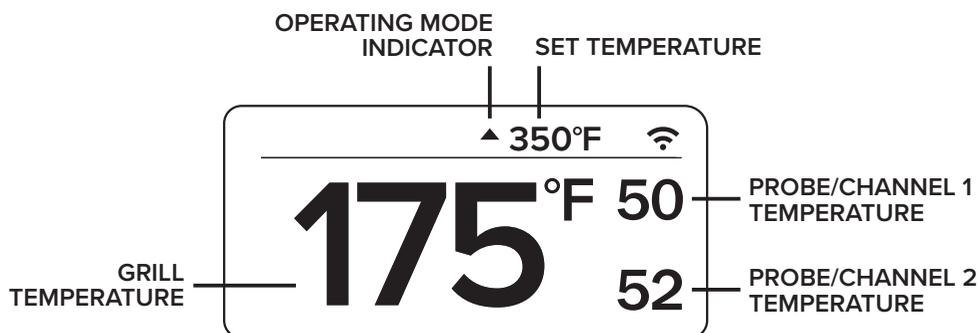
START-UP MENU

START – Press to initiate cooking functions

MENU – Press to access programs and settings

PRIME – Press to manually operate the auger





GRILL TEMPERATURE – Displays the current temperature of the grill at the center of the main cooking surface. Upon startup, the display will flash “HEAT UP” until the internal temperature of the unit reaches 125°F. At that point, the controller will display the temperature of the main cooking surface.

OPERATING MODE INDICATOR – Indicates the current mode the grill is operating in.

- ▲ **Heat-Up Mode** – An upward pointing, blinking arrow indicates the grill is increasing the temperature.
- ◆ **Maintenance Mode** – A diamond indicates the grill is in maintenance mode and is operating to maintain the set temperature.
- ▼ **Cool Down Mode** – A downward pointing, blinking arrow indicates the grill is decreasing the temperature.

SET TEMPERATURE – Displays the selected set temperature. To adjust the set point, turn the dial on the rotary selector knob clockwise to increase or counter-clockwise to decrease. The rotary selector adjusts in 5° increments. You can press in on the rotary selector to switch to 25° increments.

PROBE / CHANNEL 1 TEMPERATURE – Displays the temperature reading from Probe 1 when a food probe is inserted into the appropriate jack. If no probe is connected, the screen will not display temperature in this area.

PROBE / CHANNEL 2 TEMPERATURE – Displays the temperature reading from Probe 2 when a food probe is inserted into the appropriate jack. If no probe is connected, the screen will not display temperature in this area.

This menu allows access to options that are available during a cook. To access the menu, press any of the three selection buttons while at the home view screen. The menu will appear and allow for a selection to be made for three seconds before returning to the home view. The currently selected view will appear at the top of the screen.

VIEW – Press to toggle between view options.
See Section 1.E for additional view options.

MENU – Press to access programs and settings.

PRIME – Press to manually operate the auger.



As shown in Section 1.C, the “Pit & Probes” view is the default display option. There are five total display options; they can be chosen by pressing the view selection button on the control panel.



PIT & PROBES



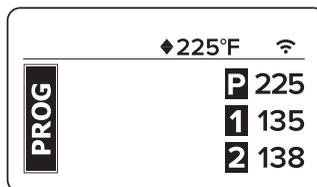
PIT



PROBE 1

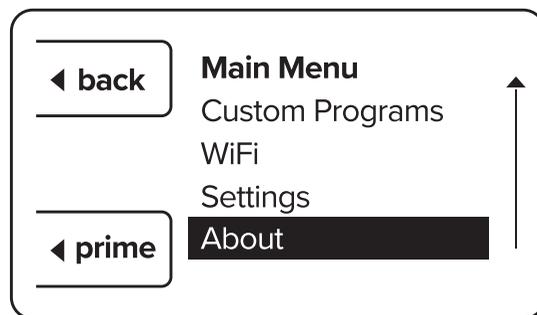
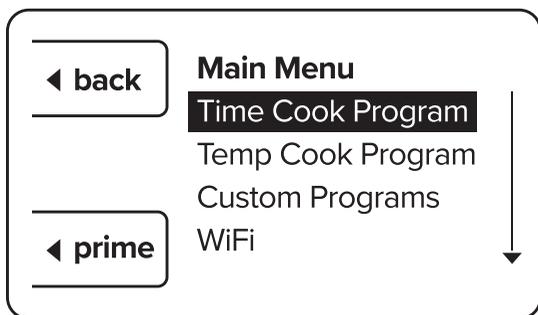


PROBE 2



PROGRAM

The main menu is accessible in either the start-up menu or in the in-cook selection menu. This menu allows the user to access their different programs, settings, and general information about their grill. Navigate the available selections in the main menu by using the rotary selector knob. You can turn the knob clockwise or counter-clockwise to change your selection and press inward on the knob to make a selection.



TIME COOK PROGRAM – The time cook function is used to run the grill for a set amount of time at a specified temperature.

TEMP COOK PROGRAM – The temp cook program is used to run the grill at a specified temperature until either Probe 1 or Probe 2 (user specified) hits the desired temperature.

CUSTOM PROGRAMS – The custom program feature allows the user to create and save a program with as many as nine steps for the cook to follow. This function is beneficial when there is a specific method you follow when cooking a certain type of meat or a particular recipe.

WIFI – Displays the current WiFi connection settings.

SETTINGS – Allows access to additional settings, such as temperature selection between Fahrenheit & Celsius or calibration of the thermocouple while the grill is running. There is a test function that can be initiated before starting the grill. The test function allows each mechanical component of the hopper assembly to be tested.

ABOUT – Displays the current controller program information.



APP INSTALL + ACCOUNT CREATION

The very first thing you'll need to do is download the free FireBoard app onto your smartphone or tablet. From your mobile device, please visit <https://apps.yodersmokers.com> to obtain download links for iOS or Android platforms.

After installing and opening the FireBoard app, you'll be presented with a login screen (**FIG 5**).

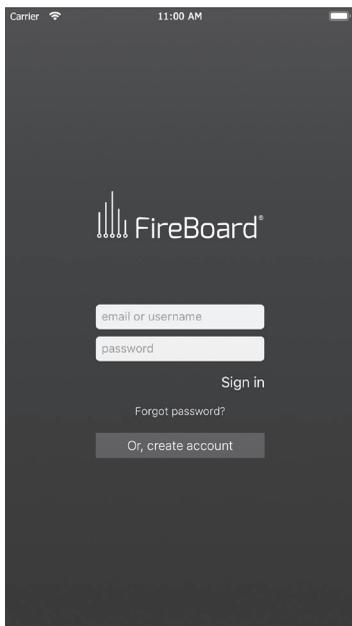


FIG 5

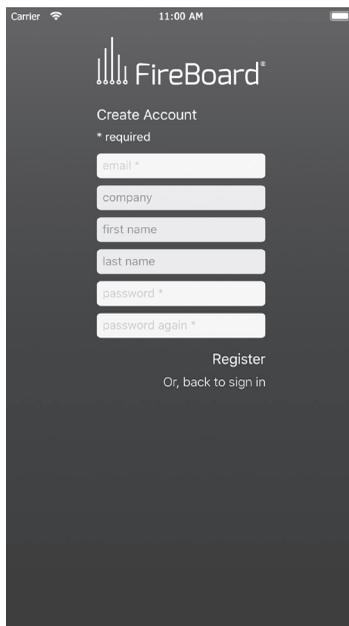


FIG 6

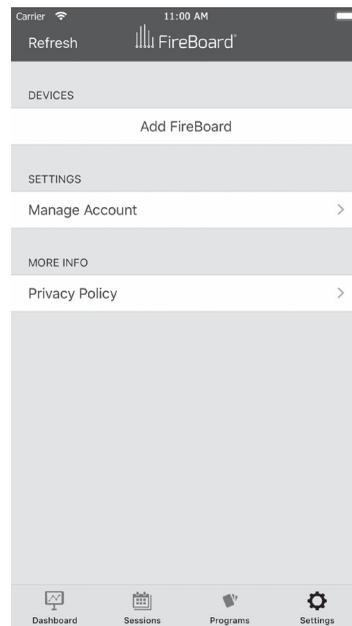


FIG 7

If you don't already have a FireBoard account, you'll need to create one. Tap on "Create Account", fill in the fields (**FIG 6**), and tap "Register."

Once registered and logged in, you should be located on the settings screen (**FIG 7**), ready to pair your cooker's embedded FireBoard with the app. If your app isn't already on the settings screen, tap the gear icon in the bottom right hand corner of the screen to navigate to the settings screen.

PAIRING YOUR DEVICE

Next, make sure your cooker is plugged in, and the power button has been pushed. You should see the default screen with the “YS” logo and the default menu displayed on your cooker. Also, please make sure your mobile device’s Bluetooth connectivity is on. It should be noted, Android users must have their mobile device’s location services enabled, or the Bluetooth pairing will fail. While within 30 feet of your cooker, tap the “Add FireBoard” button on your app screen. Your mobile device will scan for nearby FireBoard devices (**FIG 8**) and will find the one embedded into your cooker’s ACS. Once found, the app will show you the serial number of your cooker’s internal FireBoard (**FIG 9**).

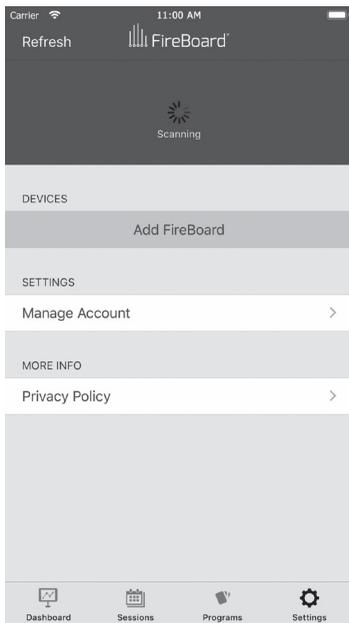


FIG 8

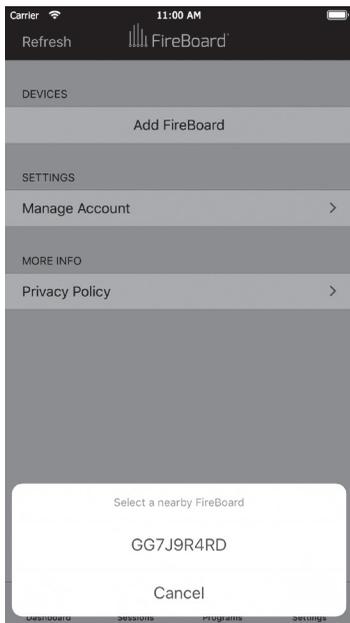


FIG 9

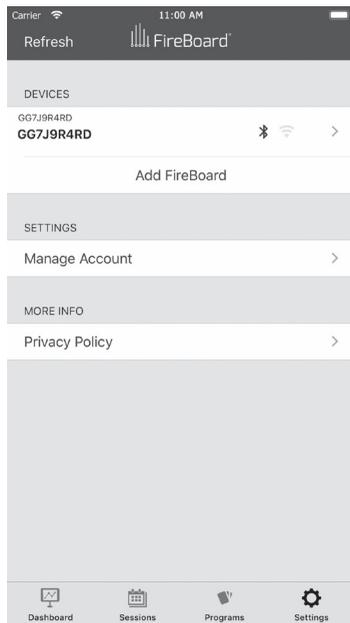


FIG 10

Finally, tap the serial number shown to complete the pairing process. Once complete, you’ll see your cooker’s FireBoard serial number listed in the settings screen. After a few seconds, you’ll also notice the Bluetooth icon becomes active on your cooker’s listing (**FIG 10**).

CONFIGURING WIFI

Tap your cooker's serial number from the list, and a few tasks can be accomplished from this new screen (**FIG 11**), but for now, we're interested in getting Wi-Fi connectivity configured, so tap on the "Manage Wi-Fi" option.

In this new screen (**FIG 12**), you'll notice a place for a network name and a password. If you already know the network name you'll be using, or if the network you use is not broadcasting its name (also referred to as an SSID), you can enter the name and password of the Wi-Fi router or access point on the provided lines. Please note that network names and passwords are case sensitive.

If you're unsure of the exact spelling of your network name, or you are unsure of which networks are within the range of your cooker, you can use the "View Available Networks" button to have your mobile device scan for nearby 2.4GHz networks (**FIG 13**).

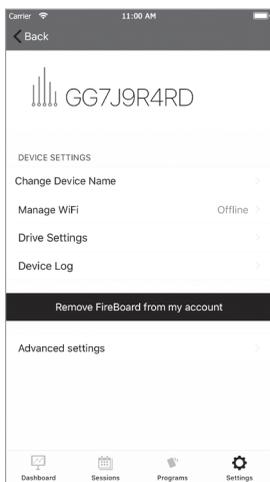


FIG 11

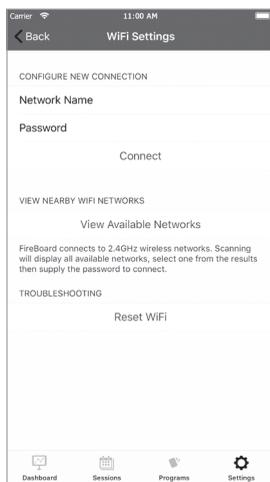


FIG 12



FIG 13

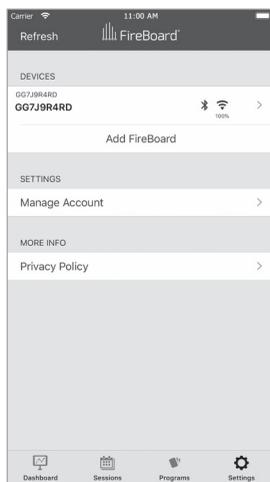


FIG 14

Tap on the Network you'd like to use, provide the appropriate password, and tap the "Connect" button. It may take up to a minute for the connection to fully establish, but you'll soon see that the Wi-Fi icon on your cooker's listing will activate (**FIG 14**). If, after a minute or so, it does not, try re-entering your network name and password, and try connecting again.

THE APP IN DEPTH

Before we get into all the details, we'd like to point out that the cooker cannot be started from the app. You will have full control once it has been started - including the ability to shut it down - but the cooker must be started from its front panel before the app can do anything aside from reporting current status. This helps ensure the safe operation of your cooker.

THE DASHBOARD

If you click on the first icon of the tab bar (the navigation that spans across the bottom of the screen), you'll be presented with the Dashboard (**FIG 15**). This is your quick overview screen, as well as one of the main sections you'll use to interact with your cooker.

The large grey bar across the top indicates your cooker's current setpoint, internal temperature, and the temperature of the two probes, if you have them plugged in. If you don't have the probes plugged in, or the pit is not currently running, you will see dashes in place of the temperature readings.

Below the large grey bar is an area used to show the various temperature readings available in graph format. We will get into more detail on this in a bit.

Once the cooker is running, the setpoint and pit values will reflect the current status of the pit (**FIG 16**).

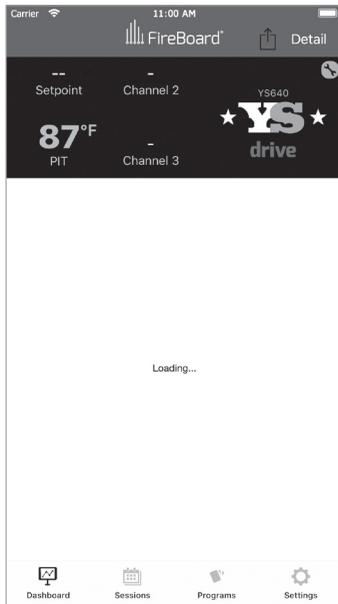


FIG 15



FIG 16

NOTABLE DASHBOARD FEATURES

- You can change the pit's setpoint by tapping on the setpoint in the grey banner (**Figure 17**). Simply enter your new desired setpoint and tap the “Set” button. Please note that changes to the setpoint take a few seconds to take effect. Please be patient for them to be reflected in the cooker and in the app's dashboard.
- The names of the two probe ports can be set according to what you're cooking. Tapping on the probe port in the grey banner will allow you to change its name (**FIG 18**). This name will also be used in the various charts throughout the app.
- An alert – in the form of an app alert, an SMS text message, or an email – can be set to let you know when one of the meat probes are at a certain temp. Simply tap on the temperature shown for the probe in the grey banner, tapping “Add New Alert,” then “Set Up Alert” and set up your parameters (**FIG 18, 19**).

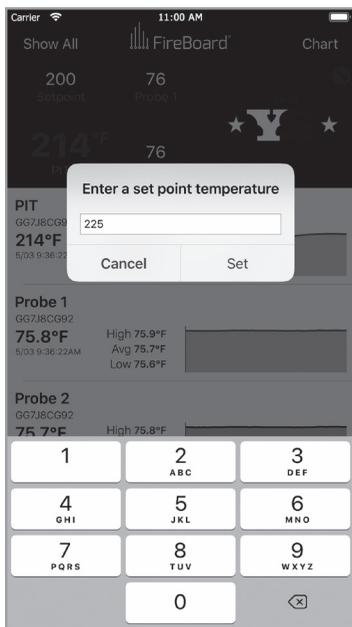


FIG 17

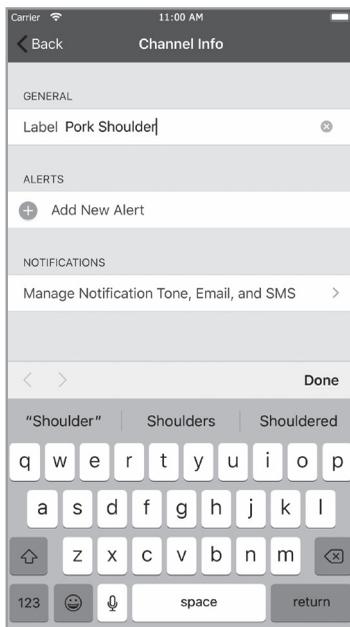


FIG 18

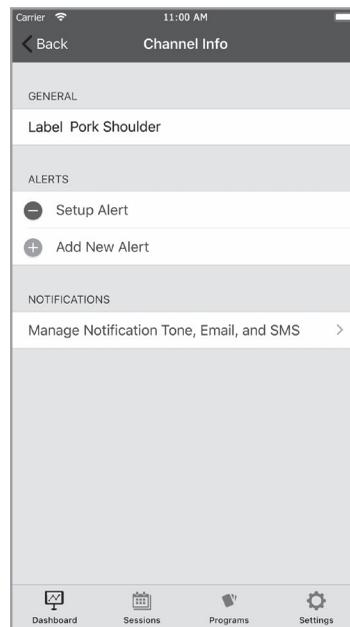


FIG 19

Alerts can be restricted to only occur during specific times of the day or at a given frequency by using the “Custom Start/Stop Time” selection. Please note that SMS text and email alerts require a little bit of set-up in the settings screen, which is described later in this document.

NOTABLE DASHBOARD FEATURES (CONTINUED)

- You can choose between two visualizations of the running temperature data: a basic chart, and a detailed chart. You can toggle between the two by tapping on the word “Chart” or “Detail,” respectively, in the title bar area of the app (FIG 20, 21).
- Tapping the small wrench icon in the upper right of the grey bar will take you to a section that allows you to choose between multiple cookers (if you have more than one paired to your mobile device) (FIG 22) and also allows you to shut down your cooker (FIG 23).

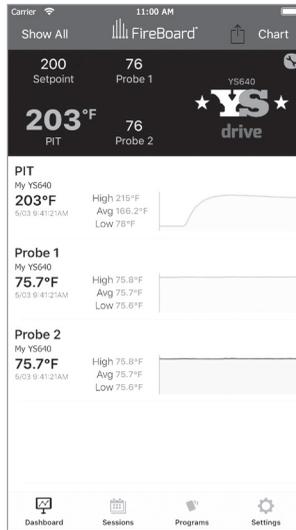


FIG 20

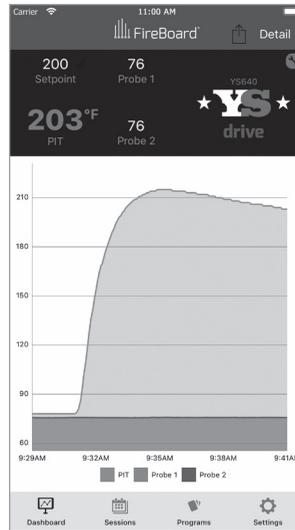


FIG 21

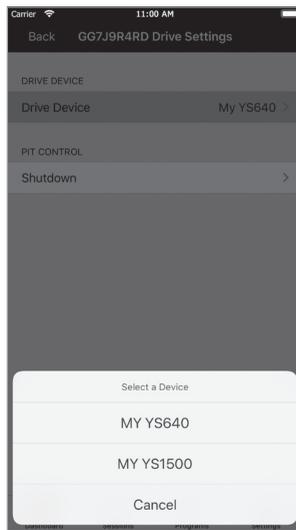


FIG 22

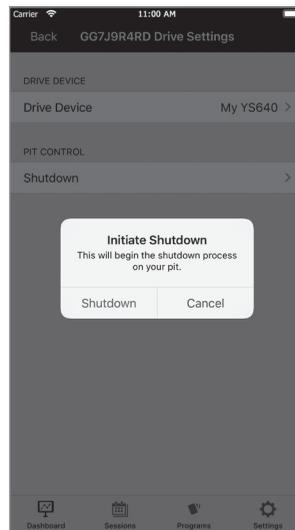


FIG 23

SESSIONS

The second icon from the left on the icon bar will navigate you to the sessions screen. This is straight-forward. A session is a record of pit and probe temperatures throughout a cook. Sessions are created automatically when probes are plugged in, or your cooker is started. By clicking the plus sign (on Android) or the “New” button (on iOS), a new session can be started at the time of your choosing. Sessions display as graphs, very similar to the detail graph shown in the dashboard.

PROGRAMS

Your cooker can be set up to execute a series of instructions that construct a cooking plan, called a program. This program consists of one or more steps that run until a criterion is met. That criterion can be a set amount of time or until one of the two meat probes hit a given temperature. The programs section can be reached by tapping the third icon from the left on the apps tab bar (**FIG 24**). To add a new program, tap on the “Add New Program” button. A new dialog will pop up to prompt you to choose the type of program you’d like to add (**FIG 25**).

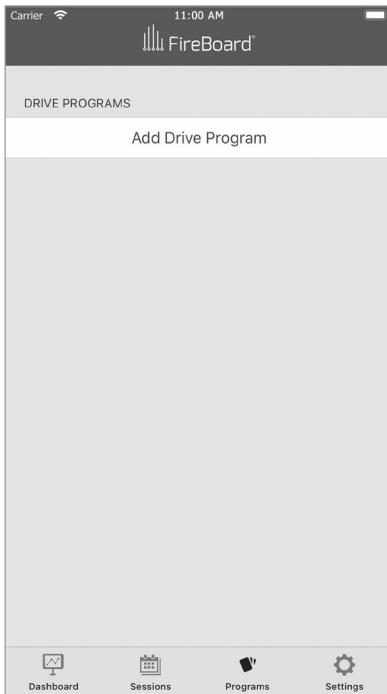


FIG 24

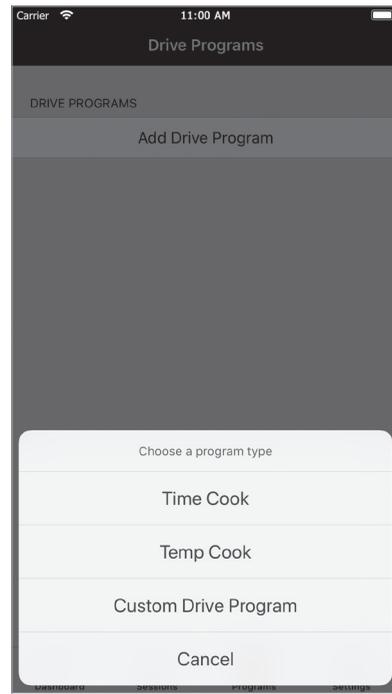


FIG 25

PROGRAMS (CONTINUED)

You have three options:

- **Time Cook:** Cooks at a given setpoint for a given amount of time. Once complete, the cooker will change its setpoint to given holding temperature. All three parameters are user-definable.
- **Temp Cook:** Cooks at a given temperature until one of the probes reaches a given temperature. Once complete, the cooker will change its setpoint to a given holding temperature. Again, all three parameters are user-definable.
- **Custom Drive Program:** A complete user-definable series of steps that can combine cooker setpoints, run-times, and measured probe temps to form any conceivable cook plan you desire.

For the purposes of this manual, we'll walk through a simple custom program example for cooking burgers. This program starts the cooker off at a low setpoint so the burger patties can enjoy some time in the smoke, before ramping up to grilling temperature and cooking until our patties are at 145° internal and ready to carryover cook to a medium level of doneness.

Tap the “Custom Drive Program” button. The screen you come to next is a blank custom program (**FIG 26**). We'll next tap the “Add Step” button. Set the cooker to run at 180° for 1 hour and 20 minutes (**FIG 27**).

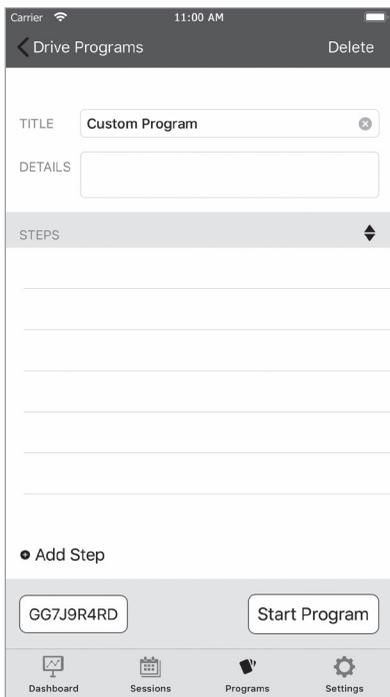


FIG 26

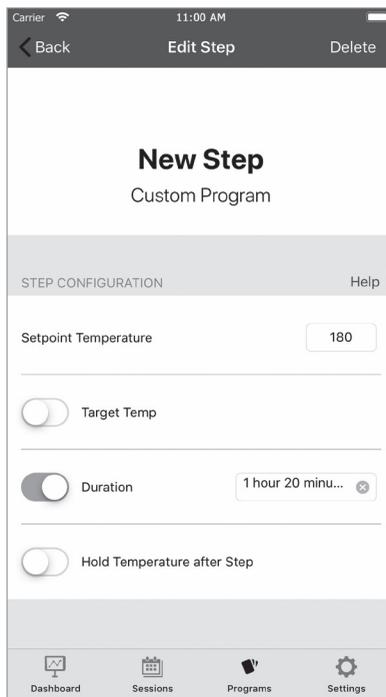


FIG 27

PROGRAMS (CONTINUED)

Steps save automatically. Just press the back button to return to the previous screen, and add a second step. This time, we'll set the cooker to run at 450° until the measured temperature on probe 1 has reached 145°. You'll note we're also setting a hold temperature of 180° (**FIG 28**).

In actuality, this automatically creates a third step with a setpoint of 180° and no time limit. Pressing back will show the resultant program, and now fill in the Name and Description fields (**FIG 29**).

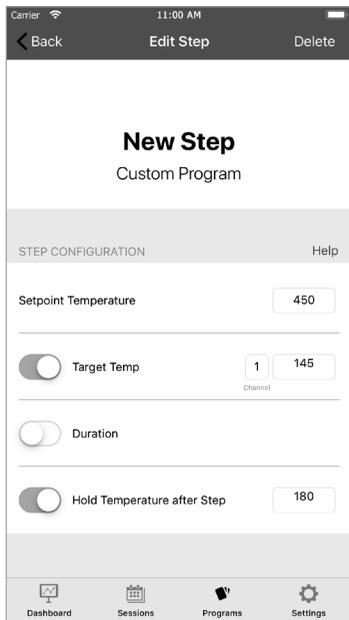


FIG 28

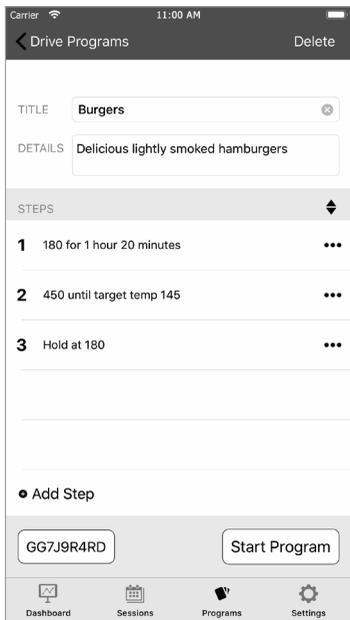


FIG 29

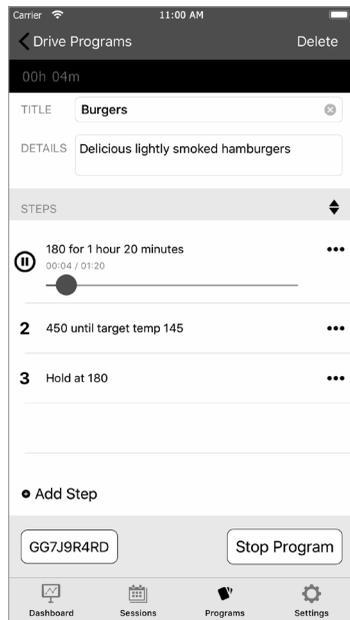


FIG 30

After making sure that the “Start” button on the cooker’s front panel has been pressed and that the cooker is in operation, you can now tap the “Start Program” button, and your new cook plan will begin within a few seconds (**FIG 30**).

PROGRAMS (CONTINUED)

While a program is running, you have the freedom to tap on any other step in the program, which will cause the cooker to skip to that step after a few seconds. You may also stop or pause a running program at any time, or delete a program by tapping into it and then tapping the “Delete” button in the upper right of the app’s title bar (**FIG 31**). Similarly, individual steps of a program can be deleted by tapping into them and tapping the “Delete” button in the upper right of the app’s title bar.

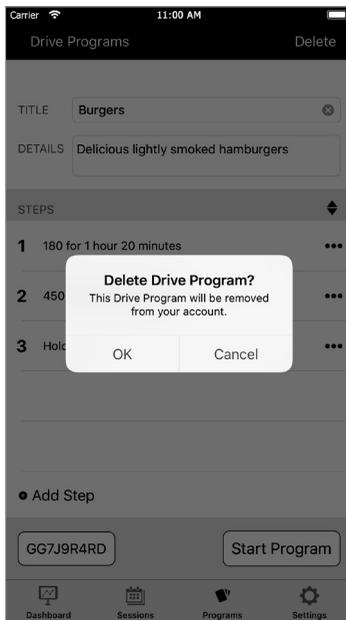


FIG 31

SETTINGS

Some of the information you'll see in this screen you're already familiar with and is covered in the First Steps section of this document, so we won't cover that again here. Tapping on the gear icon of the tab bar in the lower right corner of your screen takes you to the settings page (**FIG 14**).

ACCOUNT MANAGEMENT + ALERTS

Tapping on the “Manage Account” button takes you to the account overview screen (**FIG 32**). Here, you can see at a glance how your account is configured, including the settings of any alerts you may have set up. Tapping the edit button takes you to the account edit screen. This section allows you to edit the name associated with your FireBoard account (the email address is not changeable) and, perhaps more importantly, set up the basic information needed for the types of notifications you desire to use. We support app alerts, SMS text alerts, and email alerts.

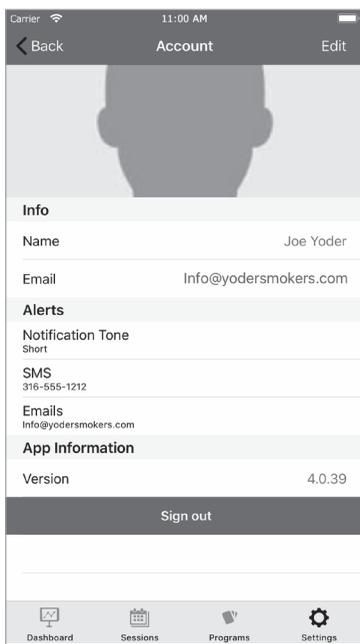


FIG 32



FIG 33

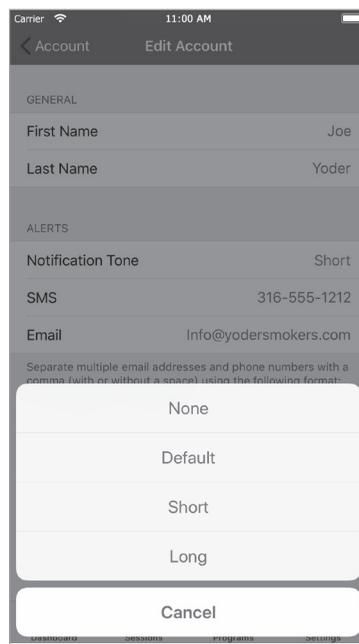


FIG 34

App alerts are the most convenient and straightforward alerts; they use your mobile device's native alerting system and one of our custom tones to let you know one of the criteria you've set up has been reached. (**FIG 33**) By tapping the “Notification Tone” line, you can customize the notification tone used to one of your liking. (**FIG 34**).

We also support SMS text alerts and email alerts. Tapping on the “SMS” or “Email” lines will allow you to edit the phone numbers and email addresses used to send those types of alerts. Tapping “Back” will return you to the account overview screen, and tapping “Back” again will return you to the main settings screen.

CURRENT TEMPERATURE NOTIFICATION (Android Only)

You can enable what's known as a “persistent notification” – a notification that will stay in your notifications area (like the swipe-down action on many Android mobile devices) – that will show you the current temperature of your pit and the meat probes, if you have them plugged in. Simply toggle this notification on and off according to your preference (**FIG 35**).

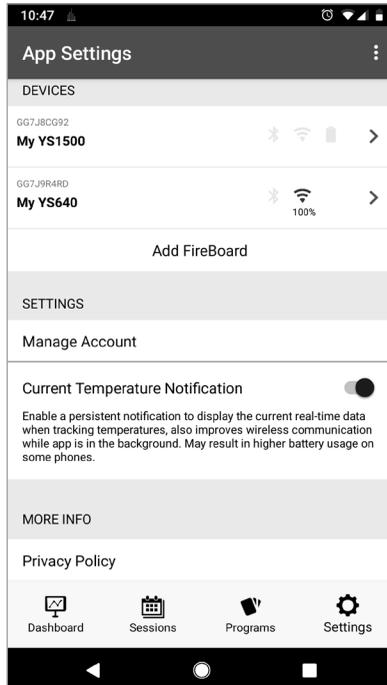


FIG 35

DEVICE SETTINGS

By tapping on your device, you'll be back in the "Device Settings" section. If you have more than one device listed, these settings are specific to each of your device.

NAMING YOUR COOKER

You can change the name your cooker is referred to throughout the app. By tapping on the "Change Device Name" line, you can edit the name to your liking (**FIG 36**), then tap "Submit" to save your changes and return to the device settings screen.

DRIVE SETTINGS

While Standalone FireBoard devices have more options available in the "Drive Settings" section of the app, the only option embedded in your ACS is the ability to turn the pit off (**FIG 37**). This is also available, as previously mentioned, from the dashboard section of the app.

DEVICE LOG

Tapping on the "Device Log" line will show a large spectrum of information about the state of your cooker's ACS and its embedded FireBoard (**FIG 38**).

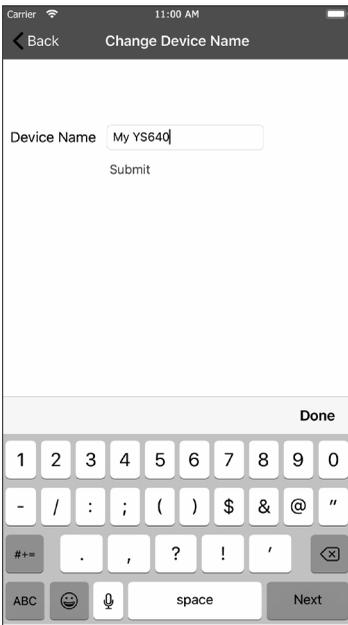


FIG 36

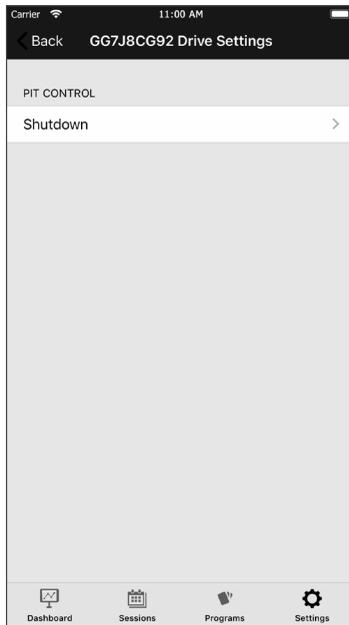


FIG 37

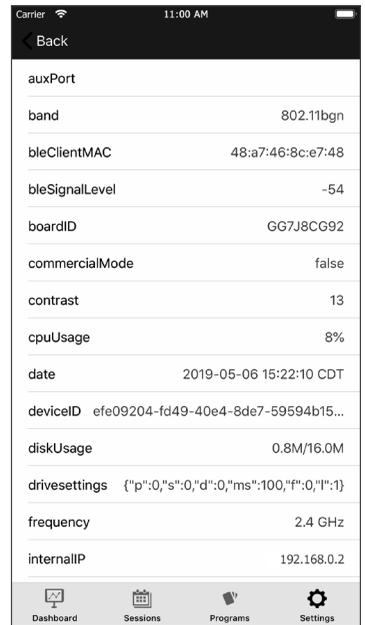


FIG 38

REMOVING YOUR COOKER FROM THE APP

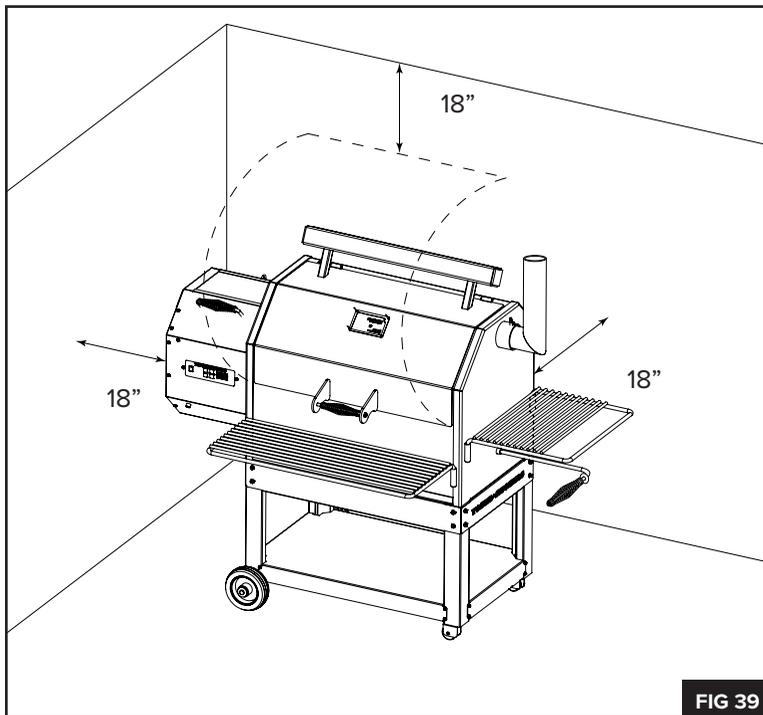
Should you need to remove your cooker from the app for whatever reason, the big red “Remove FireBoard from my account” will accomplish this for you. You will be prompted to confirm that this is indeed your wish. It should be noted that any given cooker can only be added to a single account at a time.

ADVANCED SETTINGS

This section of the app contains some seldom-used but occasionally helpful options regarding your preferred app temperature scale, adjusting your cooker’s display screen contrast, and a couple of troubleshooting options that should only be used as prescribed by your Yoder Smokers support representatives.

NOTES

OPERATING THE SMOKER



SMOKER PLACEMENT

Yoder smokers/grills should always be a minimum of 18 inches away from any combustible surface (wall, deck, rail, etc.). A heat-protective pad is recommended if the smoker is on a wooden deck. **(FIG 39)**

LEVELING THE SMOKER

The smoker must be level front to back. **However, the smoker does not have to be perfectly level from left to right** as long as the drip bucket end of the cooker is the lowest point — otherwise problems with grease running towards the burn pot could result in a grease fire.

INITIAL BURN OFF

Before cooking on your smoker/grill for the first time, burn off the grill to rid it of any foreign matter. Follow the instructions on Page 19 for initial start-up. Operate the grill at 350° F with the heat diffuser/drip pan and grates in place with the lid closed for one hour.

LIGHTING YOUR SMOKER

Always go through the Pre-Grill Checklist (Page 32). Should the igniter fail to ignite the pellets, it is easy to light your grill manually with a match and lighting agent (Page 38).

PRE-HEATING

There are two ways to cook on your Yoder grill. When the grill is set up for direct cooking, start the grill 10 to 15 minutes prior to cooking. When the grill is set up with the heat diffuser/drip pan in place, start the grill 20 to 30 minutes prior to cooking. This allows the body of the grill to heat up improving heat retention and shortening the recovery time after opening the lid.

LID POSITION

Preheat and cook with the lid closed. This allows for faster heat-up and keeps the cooking temperature even; the food will cook faster while using less fuel.

PELLET USAGE

Pellet usage will vary depending on the type of pellets, cooking temperatures, ambient air temperature, wind and whether or not the Yoder is equipped with a thermal jacket. Generally, usage is about 2 pounds per hour at grilling temperatures (350 to 450° F). At smoking temperatures (225 to 250° F) usage is about 1 1/2 pounds per hour. Consumption can vary from 1 1/2 pounds to 4 pounds per hour.

NOTE: *If the Yoder runs out of pellets, the controller will continue to drive the auger and attempt to regain the set temperature, so it's important to monitor the cooker and assure an adequate pellet supply.*

DOOR OPEN FUNCTION

When the cooker has been in maintenance for more than 10 minutes and the cooker loses more than 15 degrees, the program interpretes that the cooking chamber door has been opened. When this happens, there is a specific piece of programming that is executed to speed recovery back to the set point.

PRIME BUTTON

The prime button overrides the program altogether and turns the auger continuously, feeding pellets as long as the button is depressed. This is valuable anytime you have had the door open for a long time and have lost significant temperature or if you want to raise the cooker temperature from say 250 to 350° F. To use this function, press and hold the prime button on for 60 seconds, then let off for 60 seconds. You may repeat this twice allowing at least 2 minutes before repeating.

PRE-GRILL CHECKLIST/ROUTINE MAINTENANCE

Perform the following services prior to each cooking session when the grill is cool

1. Open the cooking chamber door and remove the cooking grates (**FIG 40**).



FIG 40

2. Remove the heat diffuser/drip plate (**FIG 41**), remove and discard previously used protective foil cover, if foil has been applied. Install a new layer of protective foil. Select heavy duty foil that is wide enough to wrap around the edges of the diffuser plate and cut long enough to cover the entire plate. Install the foil from left to right and fold over all four sides. Be sure the foil folded over the right hand edge is not hanging over the front edge (no more than 1"). Foiling the diffuser may cause variances in temperatures and may be removed to see if temperatures stabilize.

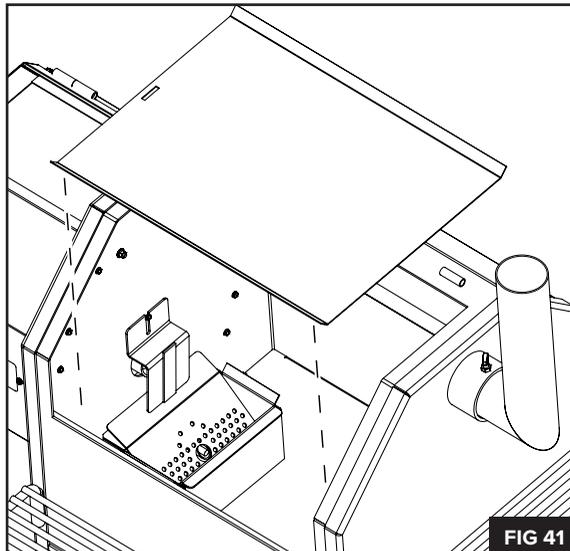
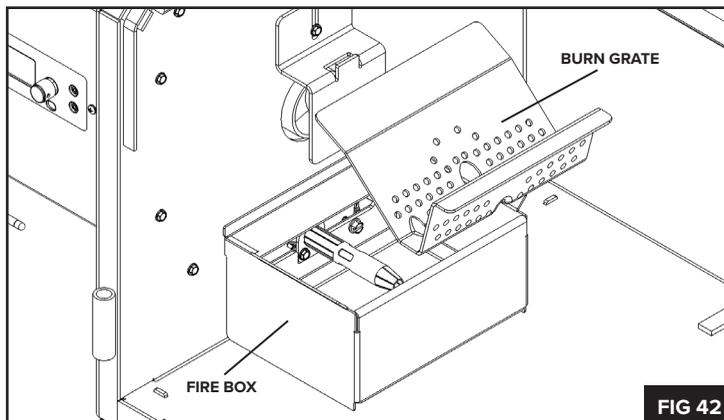


FIG 41

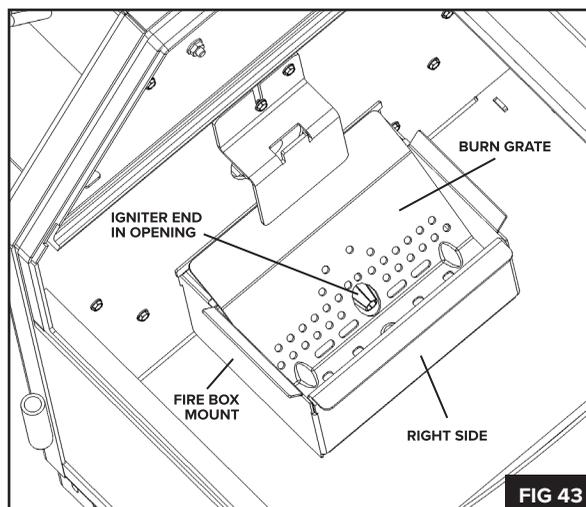
3. Remove the burn grate from the firebox (**FIG 42**). Inspect and clean thoroughly. Make certain that the combustion holes in the burn grate and the igniter tube in the firebox are free of debris or ash build up. Visually inspect the air way between the combustion fan and the firebox to be certain that it is free and clear of ash and debris (A shop vacuum works well for ash and debris removal).



4. Inspect for and remove any grease build up on the bottom of the cooking chamber.

5. Inspect the silicone seal around the firebox, paying particular attention to the seal above the firebox at the hopper wall. It will be necessary from time to time to reapply high heat silicone such as **Permatex 81160** in this area which ensures proper combustion and grill performance.

6. Reinstall the burn grate. Begin by resting the right hand side of the burn grate on the firebox and then pressing down on the left hand side of the burn grate until fully seated. When the burn grate is properly seated it rests firmly on the right hand side of the firebox and fits close to the hopper wall. Finally, check that the igniter assembly is centered in the respective hole in the burn grate (**FIG 43**).



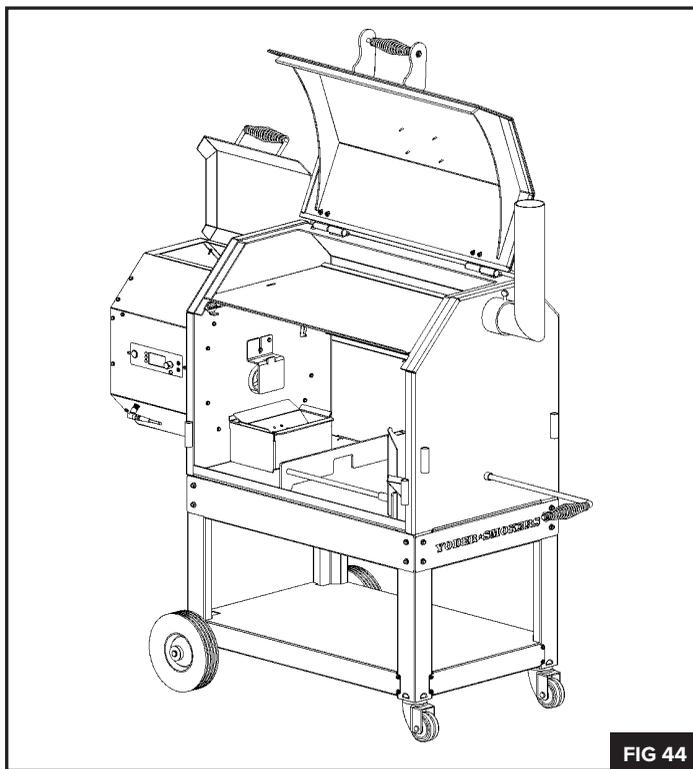
7. Reinstall the heat diffuser/drip plate. The heat diffuser plate attaches to the hook on the auger shield and rests on the grease divider on the right hand side of the grill. Once installed, check to be certain that the edges are approximately one-quarter inch below the grate rails at the hopper end and that the plate is adjusted evenly from front to back. (The diffuser is angled toward the right side of the grill to channel grease into the grease container.) **(FIG 44)**

8. Reinstall the cooking grates and second shelf.

9. Remove, inspect and clean the grease bucket as needed. Reinstall the grease bucket under the right side of the grill.

10. Open the hopper lid and inspect for any foreign materials.

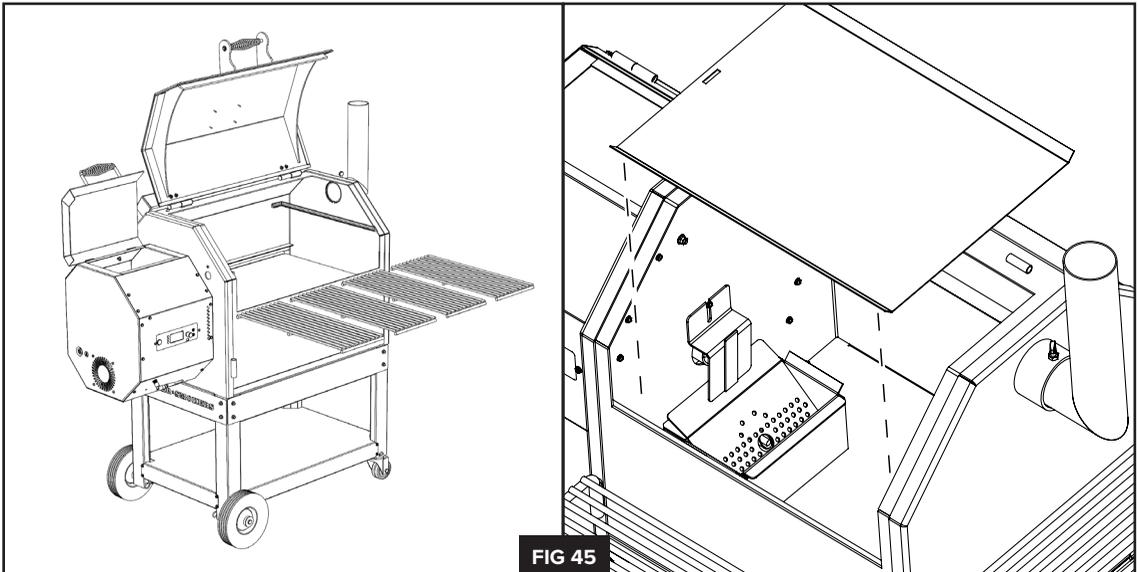
11. After complete inspection, continue to the Startup Section on the next page.

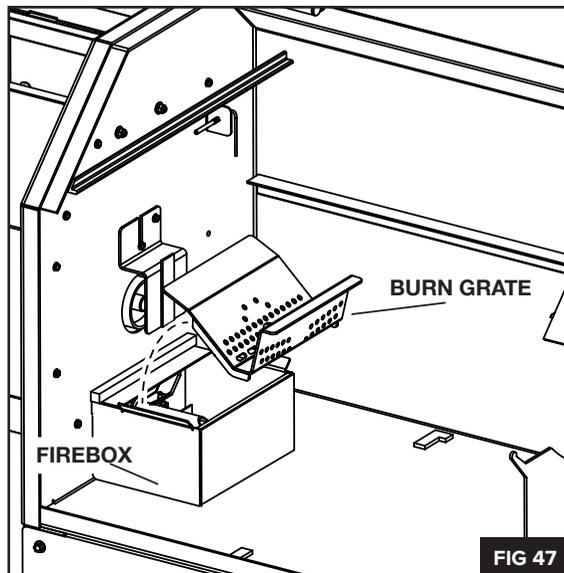
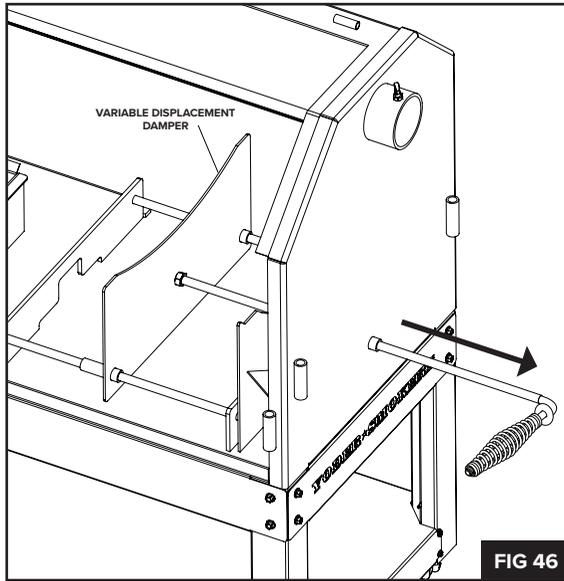


STARTUP PROCEDURE

(When using the Yoder with the heat diffuser/drip plate in position, it is best to start your grill 20 to 30 minutes prior to cooking. This allows the grill and cooking grates to heat completely improving heat retention and recovery when opening the cover during cooking.)

1. Confirm the power cord is unplugged from wall outlet.
 2. Load the hopper with “food grade” pellets. **DO NOT** use heating grade pellets. The hopper will hold 20 pounds of pellets allowing 5 to 13 hours of cooking depending on cooking temperatures, ambient temperatures, wind condition and whether or not the optional thermal jacket is installed.
 3. Open the cooking chamber door.
 4. Remove the cooking grates and heat diffuser/drip plate (**FIG 45**).
 5. Adjust the variable displacement damper to wide open — fully on the right side (**FIG 46**).
 6. Check to see that the burn grate is properly seated in the firebox (**FIG 47**).
 7. Place 1/8 cup (about a palm full) of pellets on the burn grate.
- NOTE: This step is only necessary when the unit is first put into service or if it runs out of pellets.**
8. Reinstall the heat diffuser/drip pan and cooking grates (**FIG 45**).





9. Plug the female end of the cord in the receptacle on the back of the pellet hopper. Plug the male end into a 120 volt, 15 amp GFCI-protected receptacle. If an extension cord is required, please see the caution notes on page 7 of the manual.

10. Push the power switch “on.” This starts the combustion air fan and illuminates the power light. Press the “start” button on the control panel to activate the auger feed system. (The default temperature set point is 350° F). If a higher or lower temperature setting is desired, use the increase/decrease buttons to set the temperature. This can be adjusted at any time after the start cycle is activated.

11. Flames should be visible on the burn grate within 3 to 4 minutes. (The igniter is active for 4 minutes.) When you hit “start”, the auger turns continuously for 30 seconds to prime the burn grate. At 31 seconds, the igniter is powered on; within 2 minutes, the heat from the igniter and the combustion air from the fans will have a small smoldering fire started.

NOTE: *The only way to reactivate the igniter is to turn the cooker off and let it go through the cool down cycle, or simply pull the plug for a hard reset at which point you can restart the cooker. Before restarting the Yoder, remove the grates and heat diffuser and inspect the burn grate for any pellet overflow. Remove all pellets from the burn grate area and from the pit floor if present.*

12. Once the temperature reaches the set point, open the cooking chamber and carefully oil the grates with vegetable oil. You are ready to cook!

SHUTTING DOWN THE SMOKER

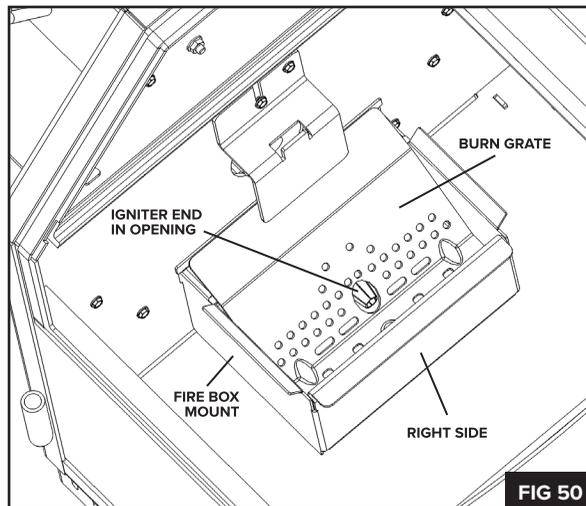
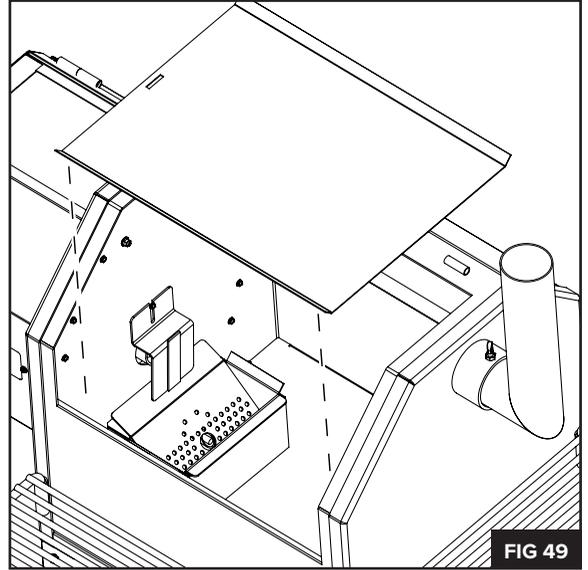
When finished cooking, push the power button. The controller will begin its automatic shutdown procedure by displaying ‘cool down’ on the controller screen.

- The auger feed system will stop feeding fuel.
- The combustion cooling fan will continue to run until the fire is burned clean.
- The fan will continue to run until the grill temperature reaches 125° F or 18 minutes, whichever occurs first.
- When the procedure is complete, the fan and power LED will turn off.
- Disconnect the Yoder from its power source. When the grill is completely cool, cover the grill to protect your investment and keep the pellets dry.

MANUAL START UP

Here are the steps to manually light the grill in the event that the igniter fails. (Steps 2 & 3 only apply if the igniter has developed a dead short and is tripping the GFCI or blowing the fuse.)

1. Be sure the Yoder's power cord is unplugged. Remove the cooking grates (**FIG 48**), diffuser plate (**FIG 49**) and burn grate (**FIG 50**).
2. Reach into the hopper cavity on the left side of the igniter tube and pull the igniter wires into the firebox.



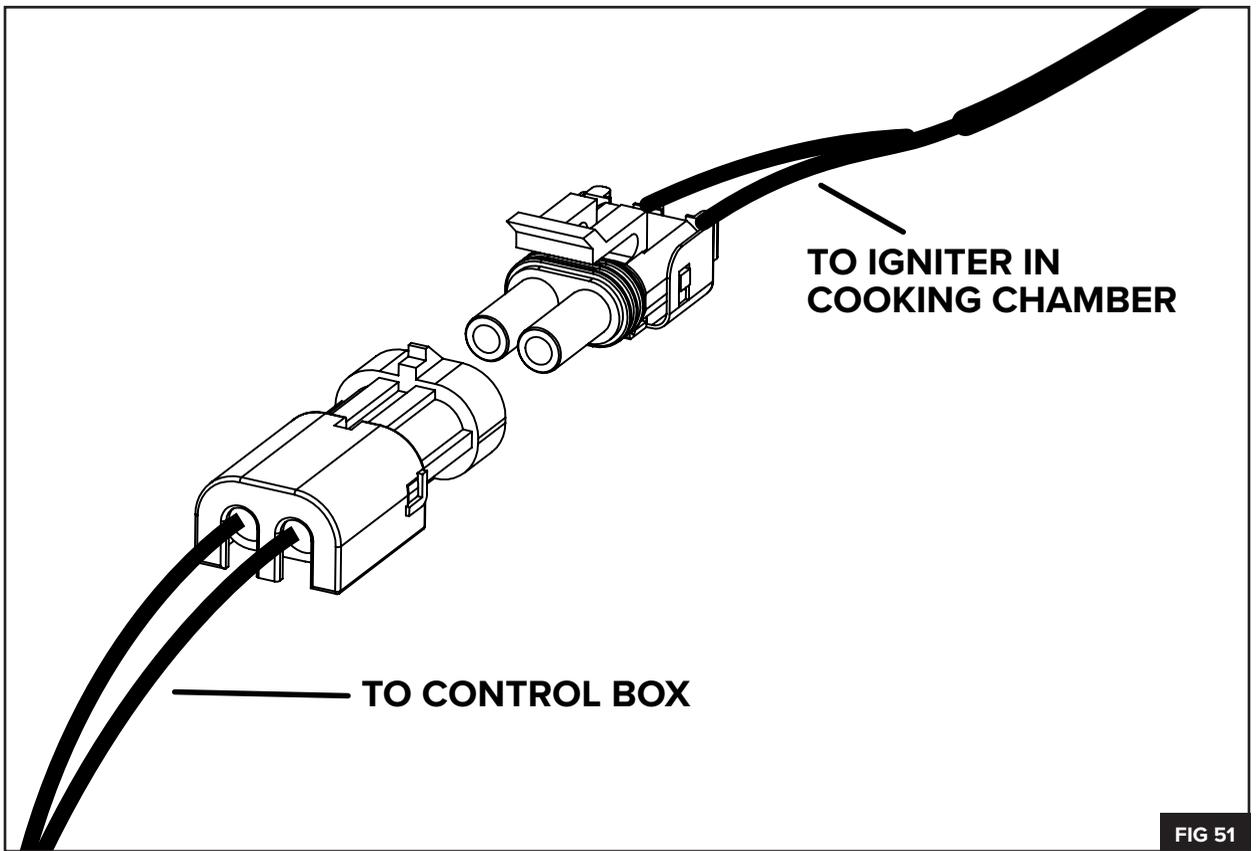


FIG 51

3. Unplug the igniter's weather tight connection and push the wires back into the hopper cavity **(FIG 51)**.
4. Reinstall the burn grate and place a small handful of pellets onto the grate.
5. Light the pellets with a torch, starter gel or starter stick.
6. Once lit, plug the power cord into an outlet, turn the power switch to the "on" position and press the start on the control panel:
 - The feed system begins the prime cycle before defaulting to the set temperature feed rate.
 - Set the desired cooking temperature (default set point is 350° F).
 - Your smoker will begin to produce a smoke during "startup" within approximately 1 to 2 minutes. To check if the pellets ignited, open the smoker and a flame should be visible in the burn pot area. You will be able to view this without having to touch any hot surfaces.



GETTING THE MOST FROM YOUR YODER: DIRECT & INDIRECT GRILLING, SMOKING & BAKING

“How long does it take from the time I press “start” until I am ready to cook?”

When the cooker is set up traditionally (diffuser plate installed), the heat up time is 20 to 30 minutes. When the cooker is set up for direct grilling (diffuser plate out), the heat up time is about 15 minutes.

It is also important to note that when the cooker is set up “direct”, the temperature at the center of the grate is hotter than the reported temperature. How much hotter depends on the set point. At 350° F on the display, the grate center is approximately 425° F. At 475° F on the display, grate center is approximately 625° F. The difference is caused by the reduction of airflow to the thermocouple when the direct grates are installed. This is true with the diffuser in or out.

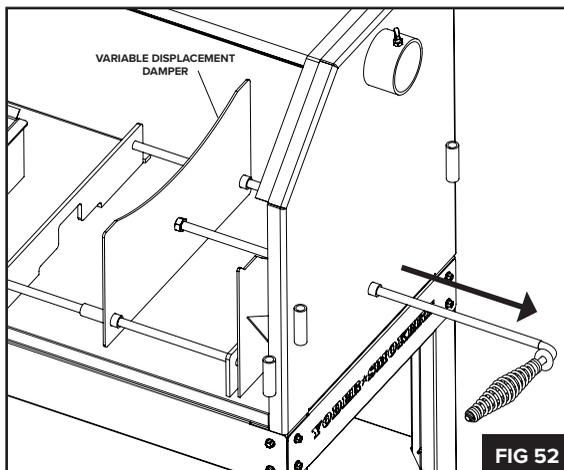
Finally, precise temperature management is not important when you are doing short cooks where you are opening and closing the pit frequently. Find a set temperature that works well for the type of food you are grilling... for instance burgers and brats do well at a 350° F set point when indirect grilling.

The versatility of your Yoder is realized by choosing one of its three unique setups:

- 1.** Smoking from 175 to 275° F & baking from 350 to 400° F (with diffuser plate in place).
- 2.** Indirect grilling from 275 to 350° F (with diffuser plate and optional Direct Grill Grates installed).
- 3.** Direct grilling where searing temperatures are desired, simply by removing the heat diffuser plate and installing the optional Direct Grill Grates.

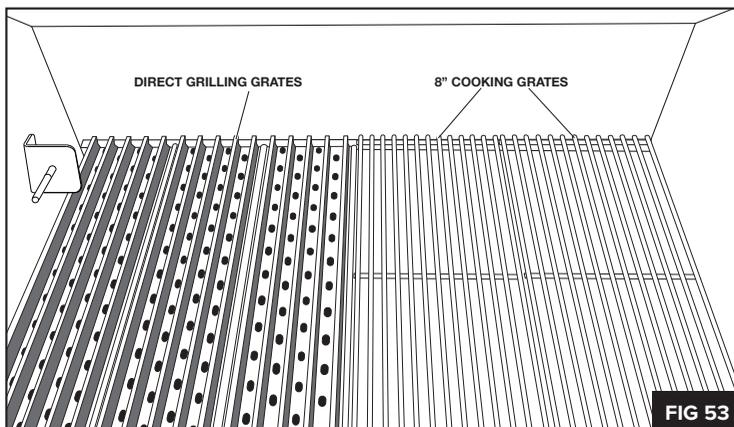
The traditional setup for the Yoder has the heat management plate between the firebox and the cooking grates. With this setup, the cooking style is best described as a wood-fired oven. This setup is ideal for all of your smoked and baked foods.

Setup #1: Smoking and baking. Heat diffuser plate in and standard cooking grates installed. In this setup, the variable displacement damper (VDD) is generally pushed in about 6 inches from the right hand side to create an even temperature across the grates (**FIG 52**).



Setup #2: Moderate temperature grilling, such as wings and boneless chicken breasts (grate temperatures up to 350° F): Heat with the diffuser plate in place and a set of Grill Grates installed on the left side of the cooker. The “Direct Grilling Kit” consists of three custom-made aluminum panels which replace two standard cooking grate (**FIG 53**).

Option: Two sets of grill grates for extended direct grilling surface.

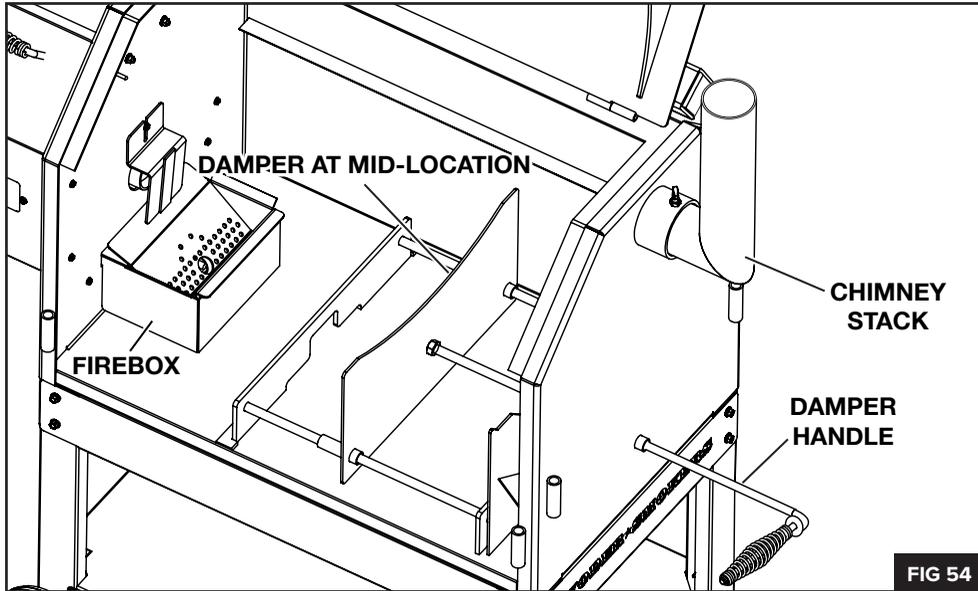


Setup #3: Direct grilling with searing capability (set temperatures above 400°). Remove the heat diffuser plate, set the variable displacement damper in the full open position (**FIG 57**) and install the Grill Grates on the left side of the cooker. (With the heat diffuser/drip plate removed, some users prefer to line the bottom of the cooker with foil to facilitate cleanup). When setup direct (heat diffuser out, one set of Grill Grates and standard cooking grates installed), the Yoder allows true direct/indirect cooking.

With a second set of Grill Grates installed on the right side of the Yoder, temperatures are fairly even across the entire cooking surface; this is true with the diffuser in or out.

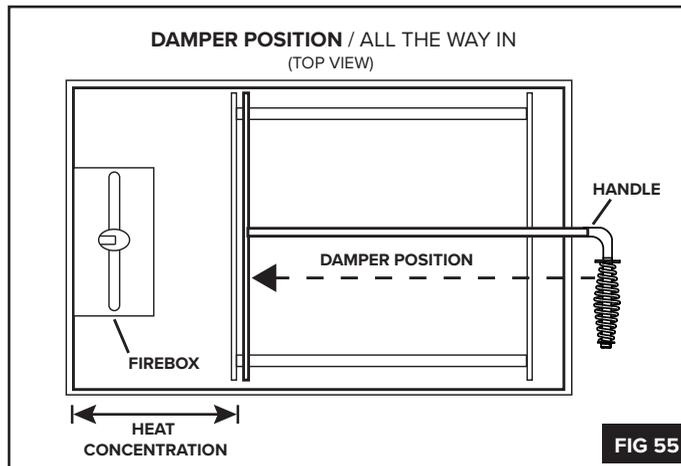
VARIABLE DISPLACEMENT DAMPER

The YS640 is fitted with a variable displacement damper for managing heat distribution in the pit from the firebox to the chimney end (**FIG 54**).

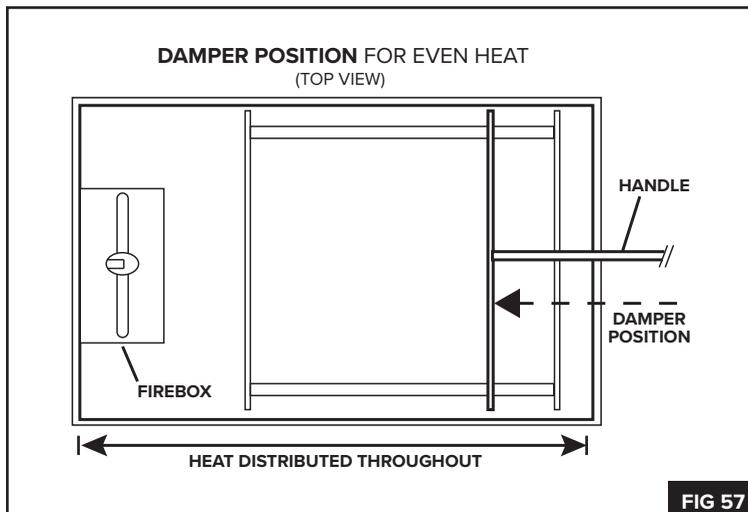
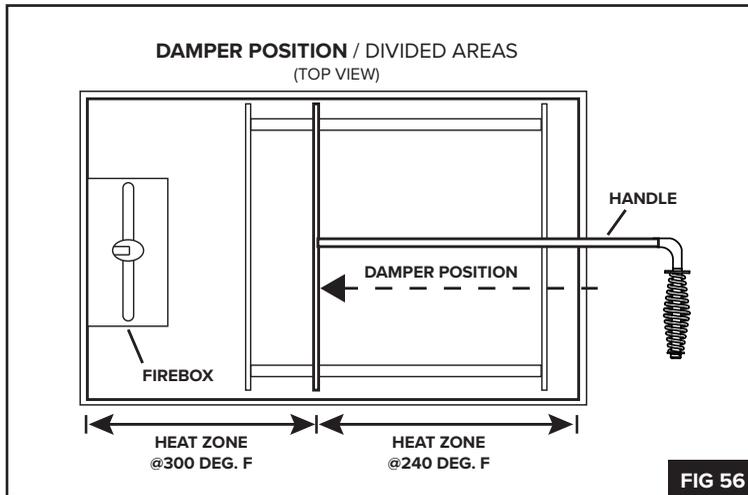


When the YS640 is set up with the heat diffuser in place, the Variable Displacement Damper allows the pit master additional temperature control at the grate level. With the damper pushed all the way in, the left half of the grill will run hotter. (**FIG 55**) When positioned all the way open, the right side of the grill will run hotter. With the damper pushed in about 5 inches, the grate surface will cook evenly, creating an ideal environment for slow cooking.

With the direct grill kit in place, it is recommended that the damper is completely open to develop heat across the entire cooking surface.



- By pushing the damper all the way in (toward the firebox), heat is concentrated for grilling on the left side of the Yoder (**FIG 55**).
- You can create dissimilar side-to-side temperature which is useful, for example, for cooking poultry on the left at 300° F and a butt or brisket on the right at 240° F. This puts different surface temperatures to work for you (**FIG 56**).
- When the damper is positioned approximately 5 inches from the stack end of the pit (full open position), this adjustment will allow you to even out temperatures from left to right, creating the ideal environment for slow cooking similar cuts of meat (**FIG 57**).



GRILL MAINTENANCE

Notice: Damage caused by improper maintenance can lead to costly repairs and may not be covered by warranty. Perform maintenance work only if the required information and proper tools are available. If they are not, or repairs beyond the scope of this manual are required, see your local dealer or contact Yoder Smokers to have trained technicians do the work.

PREPARING THE GRILL FOR THE SEASON

Begin with a thorough inspection of the entire grill correcting any issues you find. Follow the steps found in the Pre-Grill checklist (Page 32).

PAINTED SURFACES

Yoder smokers are painted with high heat silicone paint. When cleaning the smoker, surfaces should be washed down with warm soapy water using a neutral detergent, then rinsed with clean water. The paint should be periodically inspected and touched up when scuffs or bare spots are exposed. For information about high heat paint that can be used for touch-up, contact customerservice@yodersmokers.com.

COOKING GRATES

When new, wash thoroughly with warm soapy water, place back in the smoker and lightly coat with vegetable oil. Condition the grates during the burn off process. When you begin the next cooking session, bring the grill up to the desired cooking temperature and use a long-handled grill brush to clean the grates before evenly coating the grates with vegetable oil.

HEAT DIFFUSER/DRIP PLATE

This requires very little maintenance if the plate is lined with foil (non-stick foil). If foil is used, it cannot be more than 2" longer than the heat diffuser plate. The foil must be folded up tight to the bottom of the plate. Any foil hanging off the front will effect the performance of the grill. It is recommended that you change the foil every one to three uses. If the heat diffuser/drip plate is used without foil, it will need to be cleaned after each use. Failure to do so creates the potential for a grease fire.

COOKING CHAMBER

It is recommended that each time you run through the steps in the Pre-Grill Checklist (Page 16) that you inspect and thoroughly clean the interior of the cooking chamber. Any excess grease can be cleaned up using a plastic scraper and paper towels. Pay particular attention to the grease channels on the right hand side of the cooking body. At the beginning of the season, and as necessary throughout the rest of the year, de-grease the interior with a citrus based cleaning solution.

- Ensure that the grill is **completely cold** before using a shop vacuum or before scooping out and disposing of the ashes. Dispose of the ashes in a metal container.
- Use a citrus based cleaning solution to clean the entire inside of the body. This will control grease build-up and the possibility of flare-ups

FIREBOX AND BURN GRATE ASSEMBLY MAINTENANCE

It is recommended that the firebox assembly is regularly inspected to be certain that it remains free of ash and debris which will ensure proper performance. The firebox is a fully welded structure that carries the burn grate and channels the combustion air. The firebox is bolted to the cooking chamber floor. The seams on the hopper wall and the floor of the cooking chamber are sealed with a high temperature silicone. Perform regular inspection of the silicone seal, particularly on the top side of the firebox along the hopper wall. If this seal is broken, remove the old silicone, clean the surface, reapply new high temperature silicone and let it cure for 24 hours before use. We recommend using Permatex 81160 high temperature silicone or **Sure Bond SB-188**.

The seating of the burn grate into the firebox is critical for proper grill performance. Begin by resting the right hand side of the burn grate on the fire pot and then pressing down on the left hand side of the burn grate until fully seated. Once the burn grate is seated there is little-to-no movement in this assembly. Also, check to be certain that the igniter assembly is centered in the respective hole in the burn grate.

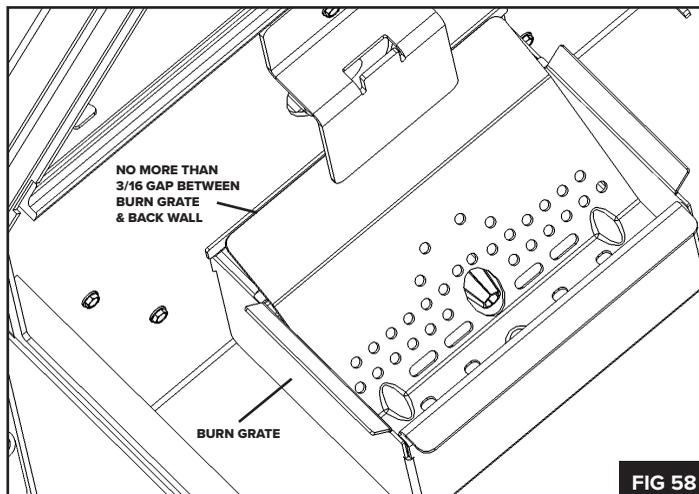
STAINLESS STEEL BURN GRATE

It is important to regularly check the combustion air holes located on the floor and sides of the burn grate for any blockage or build-up. Using a wire brush or flat-head screwdriver, scrape off any build-up or debris.

BURN GRATE INSPECTION

NOTE: Only do this when the smoker is completely cool.

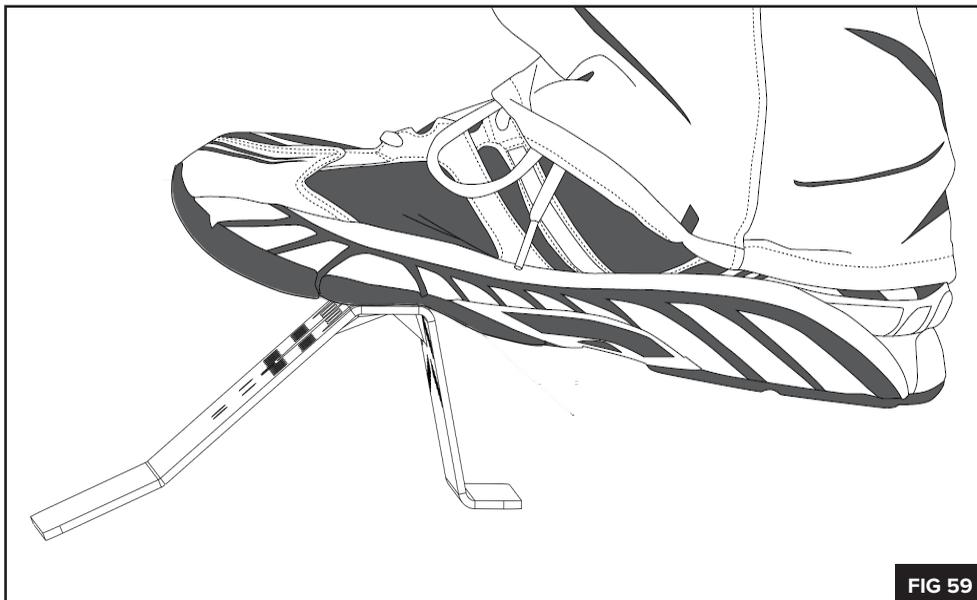
To ensure that the pit is burning efficiently, a visual inspection of the burn grate is required periodically. The burn grate should sit flat against the back wall. Due to the intense heat that is created, the burn grate can change shapes. There should be no more than a 3/16" gap from the back wall to the burn grate (**FIG 58**). If a gap does exist, then it must be corrected to ensure proper pellet burning. To access the burn grate see Page 33.



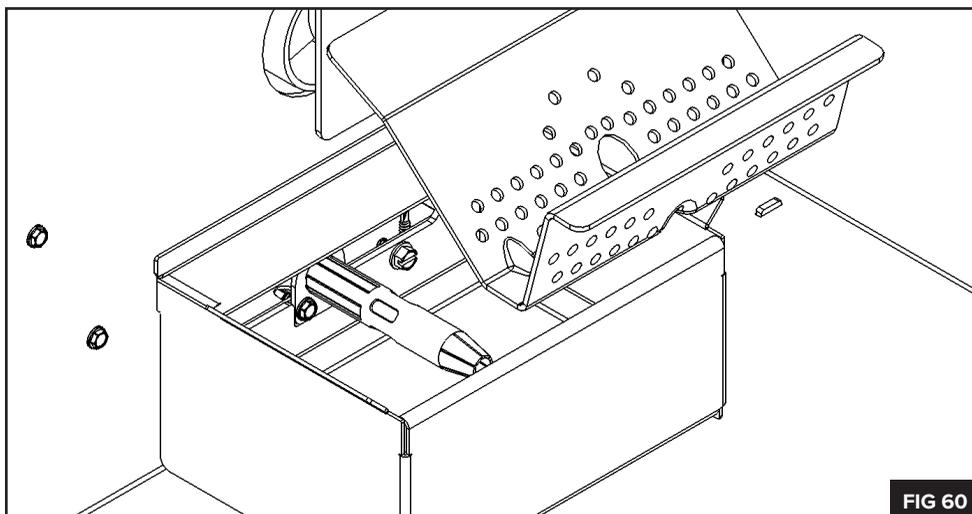
If the gap is greater than 1/8", the steps below should be followed:

1. Start by removing the burn grate from the firebox and placing it on its top.

2. Next, step on the burn grate and apply enough pressure to bend it back to its original shape. **DO NOT** apply too much pressure or you will overcorrect the burn grate and it will not fit back into the firebox (**FIG 59**).

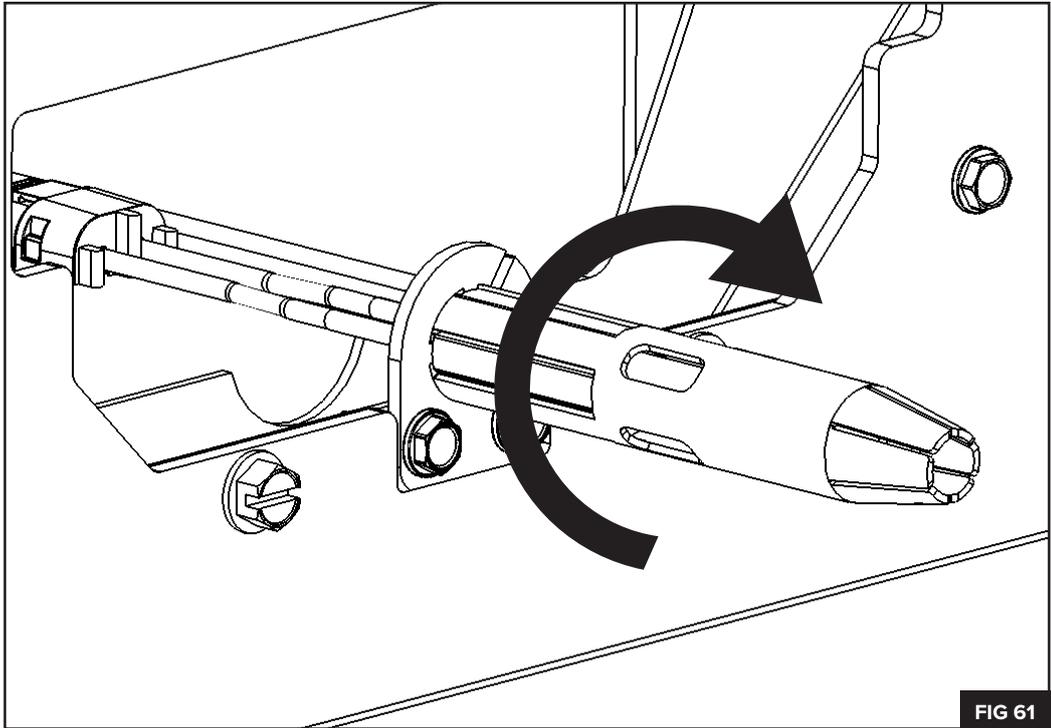


3. Place the burn grate back into the firebox and check the gap between the back wall and the burn grate to ensure a proper fit. If a gap still exists, then repeat steps 1 and 2 (**FIG 60**).



IGNITER

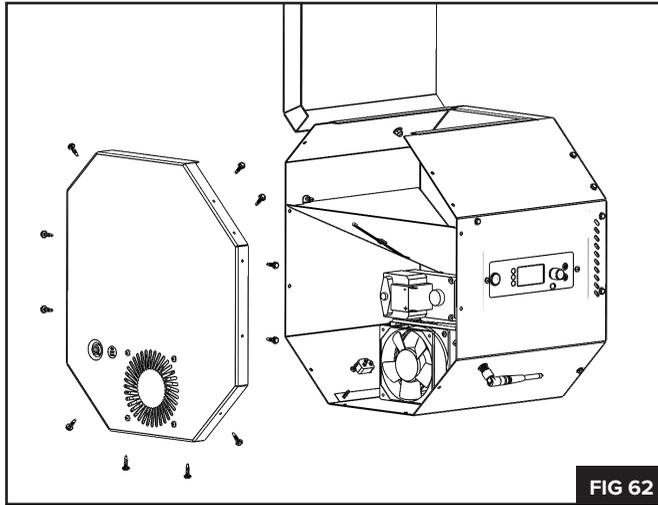
When inspecting the firebox assembly, confirm that the igniter assembly, tube and igniter rod are free of ash or other debris. Periodically inspect the igniter tube, to ensure it is tightly secured, by grabbing the tube and turning it clockwise (**FIG 61**).



FAN COOLED HOPPER ASSEMBLY

Always disconnect the power to the grill before performing any service

1. Remove any debris from the combustion air fan intake. Use compressed air to remove dust and debris from both fans.
2. Inspect and clean the pellet hopper area. The interior hopper surface can be wiped down using warm water and detergent. To protect the surface and promote smooth pellet feeding, coat surface with car wax.
3. Inspect the metal auger area and remove any debris or sawdust that may have built up.
4. Using a 5/16" socket, remove the 11 screws securing the end panel to the hopper assembly (**FIG 62**). This will allow you to perform the following:
 - Check and clean any debris within the hopper housing.
 - Check and clean any debris in the fan blades or housing.
 - Check and clean any debris from the auger motor.
 - Visually inspect the wiring harnesses and terminal connections.
5. Upon inspection (and any required maintenance) replace all screws. Hand start each screw to ensure proper threading.



GREASE MANAGEMENT AREA AND BUCKET

Always be sure the grease catch area is clean and free of debris; empty the grease bucket regularly.

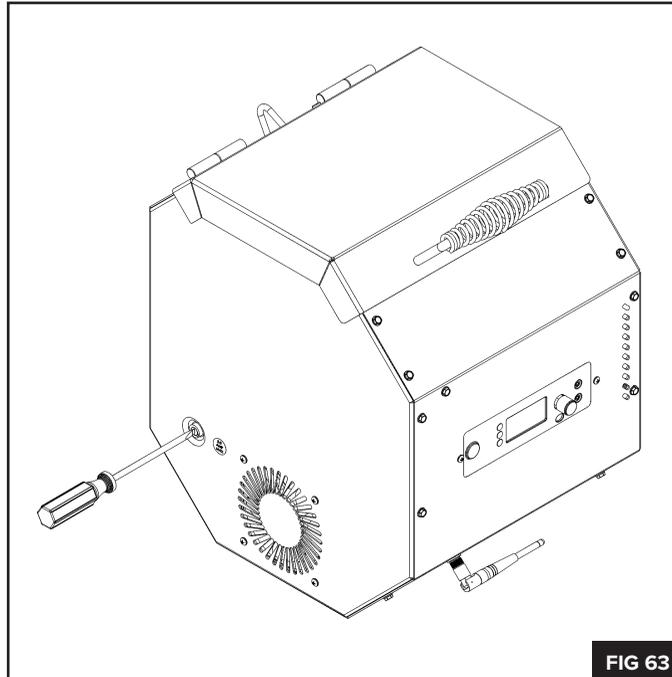
Additional Maintenance:

In addition to regular cleaning, perform the following procedures every 30 days:

1. Use a stiff brush to remove any build-up on the inside walls of your grill. Inspect and clean the inside of the lid, the heat diffuser/drip tray and the inside walls of the cooking chamber.
2. When your grill is cool to the touch, use a shop vacuum to thoroughly clean the cooking chamber, firebox and hopper assembly.
3. Use a citrus based cleaning solution to thoroughly clean the inside of the grill.
4. Finally, visually inspect the painted surfaces and touch up any scratches with high heat black paint.

FUSE REPLACEMENT

If there is no display and the LED light isn't on after the power button has been pushed, check the power source to verify the GFCI hasn't tripped. If the power source is working, check the Yoder fuse. The fuse holder is located on the hopper end panel (**FIG 63**). Verify that the power is off and the Yoder is unplugged. Insert a small flat blade screwdriver into the slot on the top of the fuse container and twist it counterclockwise to open. If the fuse is blown, replace it with the supplied replacement fuse. (The fuse is a 5-ampere quick-blow fuse.) Reconnect the power and turn the Yoder on. If the fuse blows again, contact us for technical support.

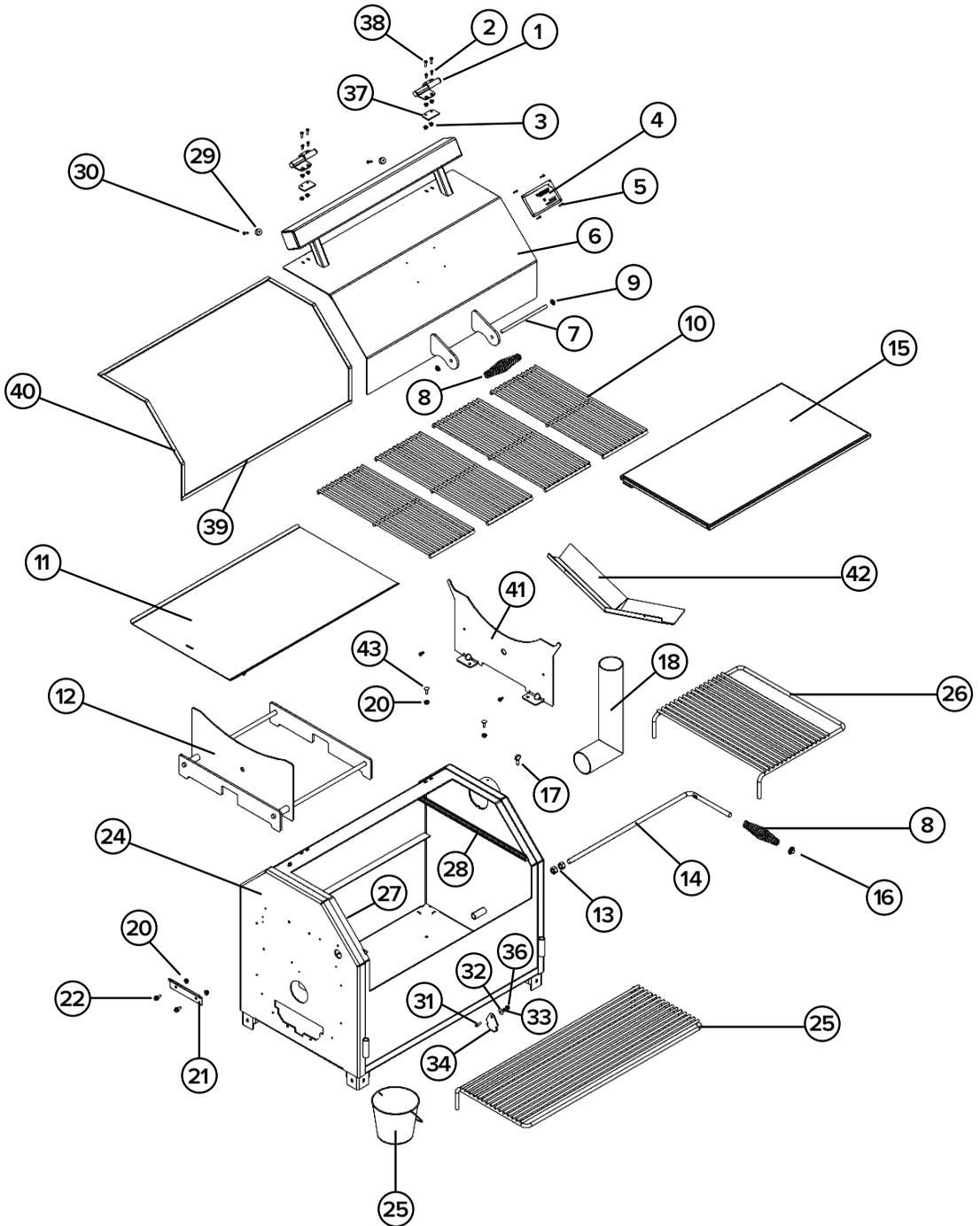


STORING YOUR GRILL

Cover your Yoder Smoker to protect it from the weather and to keep the pellets dry. If storing your cooker inside, be sure the smoker is cool to the touch before moving it inside. Inspect the hopper and cooking chamber for any remaining embers before storing the unit.

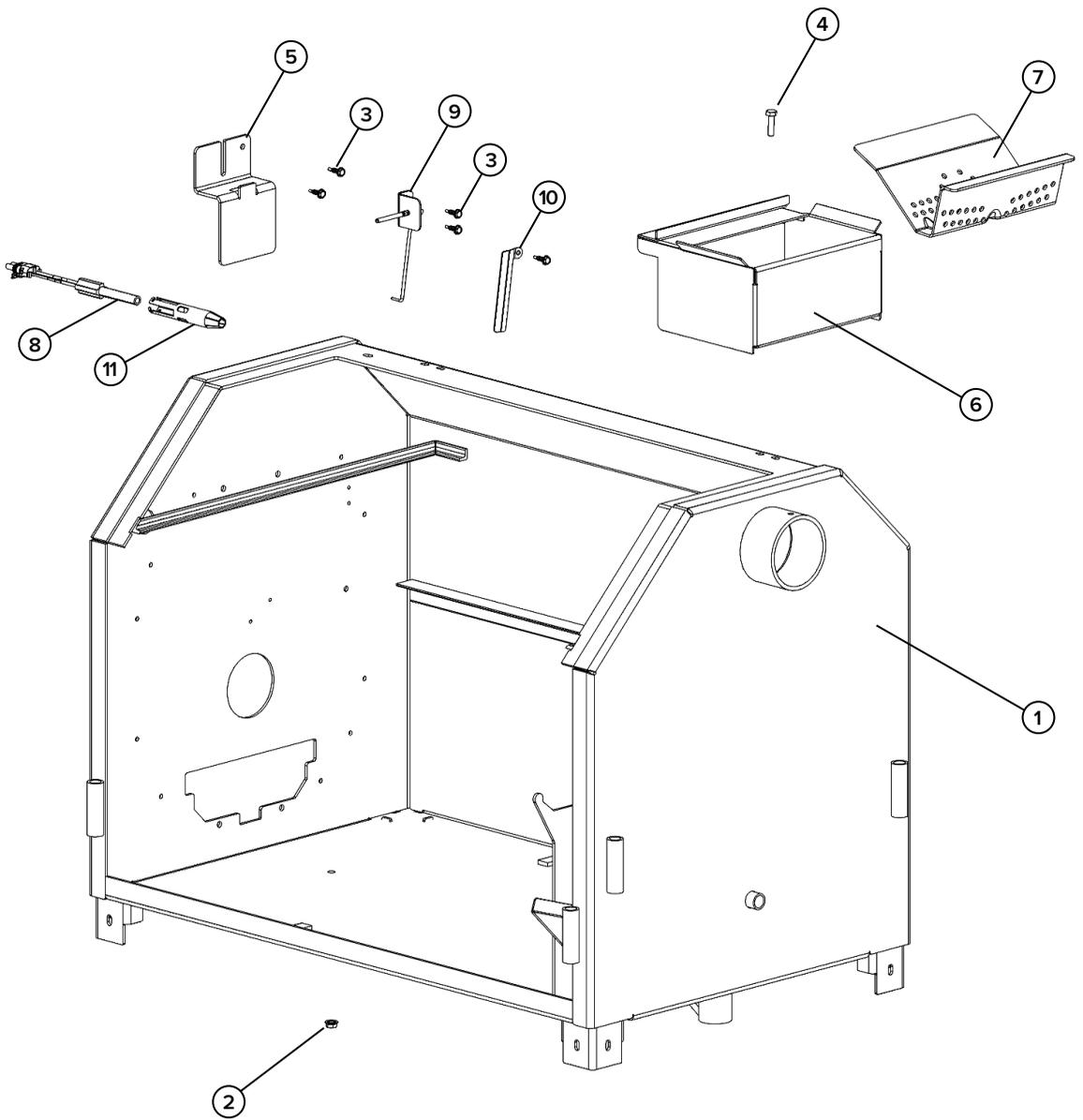
ITEM #	PART #	DESCRIPTION	QTY.
1	90737	STAINLESS HINGE	2
2	1024X12FHMSSS	FLATHEAD MACHINE SCREW, STAINLESS 10-24 X 1/2	4
3	1024WHN	12-24 WHIZ NUT	8
4	24497	SERIAL PLATE	1
5	236-2489-02	POP RIVET	4
6	W90780	YS640s CHAMBER LID	1
7	41435	HANDLE ROD	1
8	22866	HANDLE SPRING	2
9	22924	3/8" PUSH CAP	2
10	90901	UNIVERSAL CHROME COOKING GRATE 8"	4
11	W91641	HEAT DIFFUSER	1
12	W90813	ADJUSTABLE DAMPER	1
13	1213HN	1/2-13 HEX NUT	2
14	90429	DAMPER HANDLE	1
15	W90348	YS640 SECOND SHELF WELDMENT	1
16	23108	1/2" PUSH CAP	1
17	90377	THUMBSCREW	1
18	W90067	CHIMNEY	1
19	1420X12SHCSSS	SOCKET HEAD SCREW 1/4-20 X 5/8"	1
20	1420WHN	1/4-20 WHIZ NUT	3
21	90117	HOPPER MOUNTING BRACKET	1
22	1420X58WHB	1/4-20 X 5/8" WHIZ BOLT	2
23	90460	YS GALVANIZED BUCKET	1
24	W90779	YS640s CHAMBER	1
25	90197	YS640s/YS480s CHROME WIRE SIDE SHELF	1
26	90195	YS640s CHROME WIRE FRONT SHELF	1
27	90352	LEFT 2ND SHELF RAIL	1
28	90353	RIGHT 2ND SHELF RAIL	1
29	24712	COUNTERWIEGHT BUMPER	2
30	818X34PHSDS	SELF DRILLING SCREW FOR COUNTERWEIGHT BUMPER	2
31	1024X34BHCSSS	BUTTON HEAD CAP SCREW, STAINLESS 10-24 X 3/4" LONG	1
32	91742	#10 3/4" OD .030 THICK FLAT WASHER, STAINLESS	1
33	91762	#10 5/16" OD 1/8" LONG SPACER	1
34	91741	PROBE PORT DOOR, STAINLESS	1
35	91777	SILICONE PROBE PORT PLUG	1
36	1024FLN	10-24 FLANGE LOCK NUT	1
37	48259	1/8" THICK SHIM	2
38	1024X34FHMSSS	FLATHEAD MACHINE SCREW, STAINLESS	4
39	92001	GASKET 21.5" LONG	2
40	92002	GASKET 29.5" LONG	2
41	92301	BOLT-IN DIFFUSER SUPPORT	1
42	92302	BOLT-IN GREASE DRAINING TRAY	1
43	1420X34CB	1/4-20 X 3/4" CARRIAGE BOLT	2

640 COOKING COMPONENTS



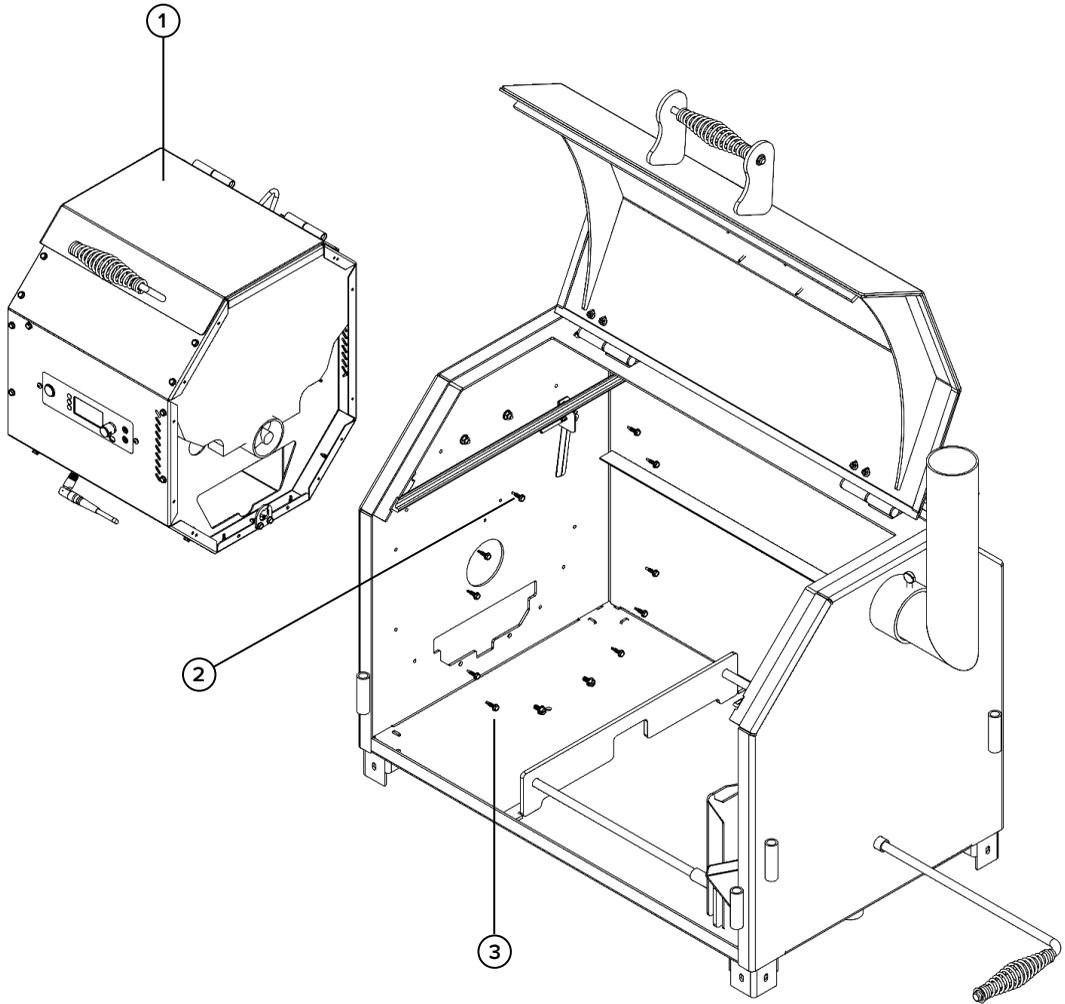
640 IGNITER AND THERMOCOUPLE COMPONENTS

ITEM #	PART #	DESCRIPTION	QTY.
1	W90779	YS640 CHAMBER	1
2	1420WHN	1/4-20 WHIZ NUT	1
3	10X34HHSDS	HEX HEAD SELF DRILLING SCREW	5
4	1420X1HB	HEX BOLT 1/4-20 X 1" LONG	1
5	91713	STAINLESS AUGER COVER BRACKET	1
6	W90811	STAINLESS FIRE POT	1
7	92401	STAINLESS REINFORCED BURN GRATE	1
8	24667	CERAMIC IGNITER ASSEMBLY	1
9	A91413	SIDE WALL THERMOCOUPLE ASSEMBLY	1
10	92271	STAINLESS THERMOCOUPLE WIRE COVER	1
11	92191	IGNITER TUBE	1



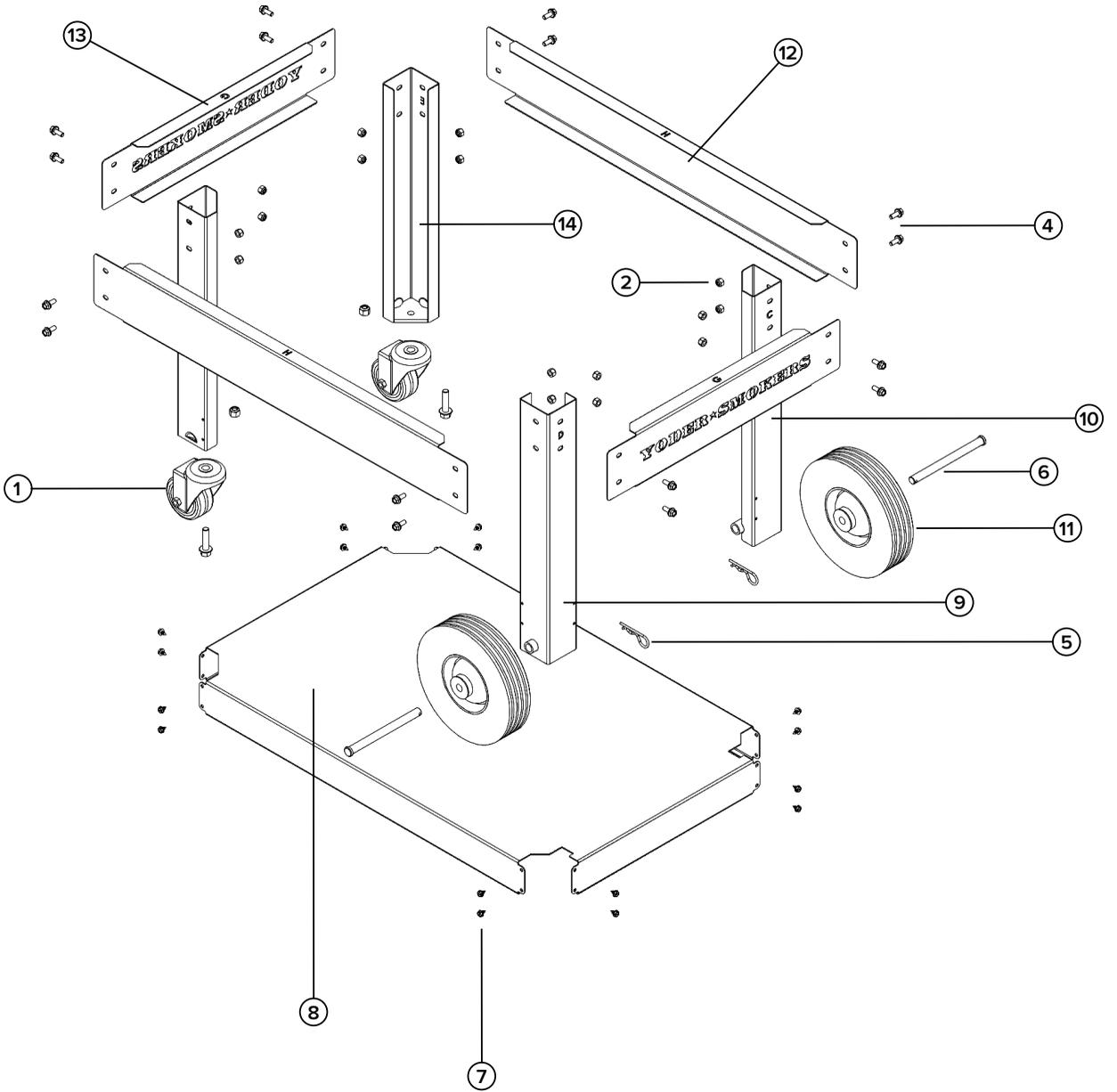
640 HOPPER AND COOKING CHAMBER

ITEM #	PART #	DESCRIPTION	QTY.
1	A92473	HOPPER ASSEMBLY, YS480s/YS640s WITH ACS	1
2	10X34HHSDS	SCREW, HEX HEAD, SELF DRILLING 10 x 3/4	10
3	1420X12HHSTS	SCREW, SLOTTED, HEX HEAD, SELF TAPPING, 1/4-20 x 2	2



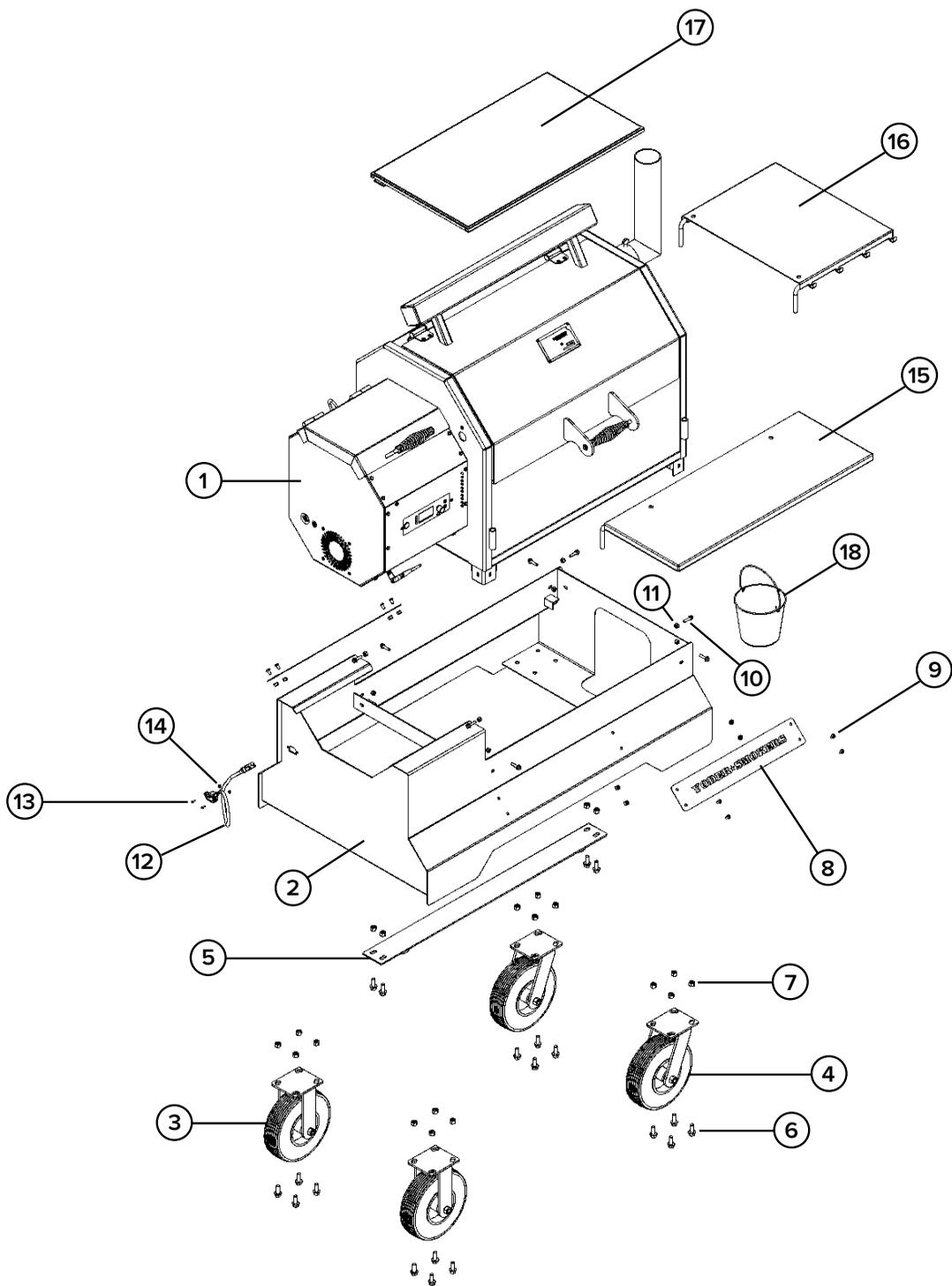
640 STANDARD CART

ITEM #	PART #	DESCRIPTION	QTY.
1	24640	3" CASTER WHEEL, YODER ORANGE	2
2	1420HNNL	1/4-20 NYLOCK NUT	16
3	3816HNNL	3/8-16 NYLOCK NUT	2
4	1420X58WHB	1/4-20 x 5/8" LONG BOLT	16
5	701-102-02	PIN	2
6	90398	AXLE	2
7	1016X38HHSMS	HEX HEAD SLOTTED SHEET METAL SCREW	16
8	90172LFP	YS 640s BOTTOM SHELF	1
9	W90786	RIGHT FRONT LEG	1
10	W90784	LEFT FRONT LEG	1
11	24252	8" WHEEL	2
12	90166LFP	YS640s LONG SKIRT	2
13	90165LFP	SIDE SKIRT W/ YODER SMOKERS LOGO	2
14	W90782	REAR LEG (CASTER)	2



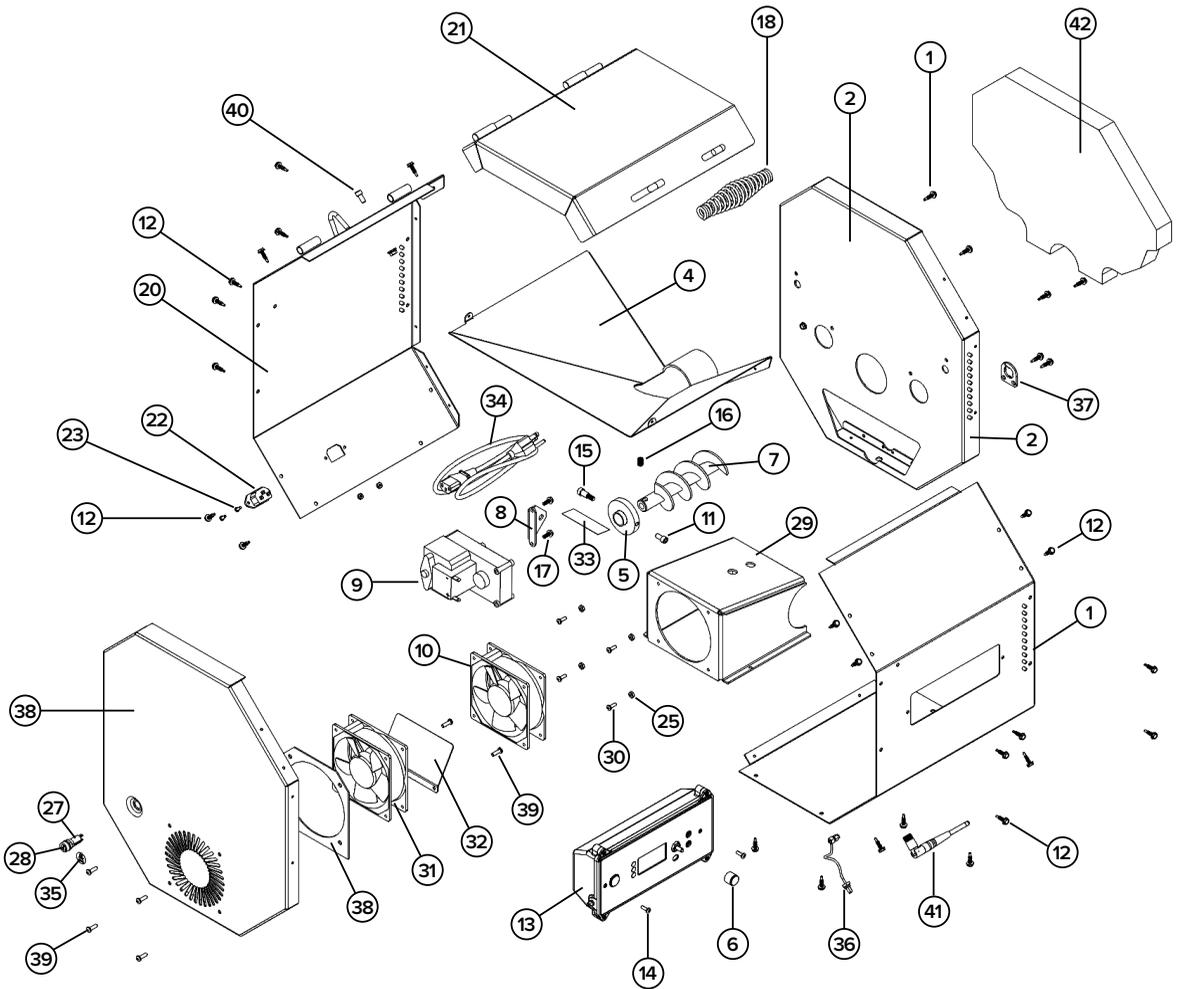
640 COMP CART

ITEM #	PART #	DESCRIPTION	QTY.
1	A90491	YS640s CHAMBER ASSEMBLY	1
2	W90551	YS640s COMP CART BASE WELDMENT	1
3	24625	8" CASTER WHEEL, RIGID	2
4	24626	8" CASTER WHEEL, SWIVEL	2
5	W90531	YS640s TIE DOWN	1
6	3816X1FHB	FLANGE HEAD BOLT 3/8-16 x 1" LONG	20
7	3816HNNL	3/8-16 NYLOCK NUT	20
8	90527	YODER SMOKERS COMP CART SIGN	2
9	1420X12BHCSSS	BUTTON HEAD CAP SCREW, STAINLESS 1/4-20 x 1/2"	8
10	1420X1FHB	FLANGE HEAD BOLT 1/4-20 x 1" LONG	8
11	1420HNNL	1/4-20 NYLOCK NUT	16
12	91434	COMP CART WIRE HARNESS EXTENSION	1
13	632X38MS	PHILLIPS HEAD MACHINE SCREW 6-32 x 3/8" LONG	2
14	632HN	6-32 HEX NUT	2
15	A90535	STAINLESS FRONT SHELF YS640s	1
16	A90511	STAINLESS SIDE SHELF YS640s	1
17	W90348	YS640s SECOND SHELF WELDMENT	1
18	90460	YS GALVANIZED BUCKET 1-1/4 QT.	1
19	24117	EDGE TRIM	6 LF



ITEM #	PART #	DESCRIPTION	QTY.
1	90101	HOPPER FRONT PANEL	1
2	90102	HOPPER BULKHEAD MOUNT	1
3	90106	HOPPER FAN END PANEL	1
4	W90791	STAINLESS HOPPER	1
5	A91999	AUGER BUSHING ASSEMBLY	1
6	24673	CONTROLLER KNOB	1
7	W92017	AUGER WELDMENT	1
8	90027	AUGER ANTI-TORQUE PLATE	1
9	90001	AUGER MOTOR	1
10	90060	INNER FAN 115 CFM	1
11	1420X12SHCS	SOCKET HEAD CAP SCREW, 1/4-20 .05 LONG	1
12	10X34HHSDS	ADJUSTABLE DAMPER	33
13	A92250	CONTROLLER WTH BOX HARNESS	1
14	832X12PHMSP	SCREW, MACHINE, PAN HEAD, PHILLIPS, 8-32 x 1/2" LONG	2
15	516X12SHSB	SHOULDER BOLT, .313 x .50 SOCKET HEAD 1/4-20	1
16	51618X12SHSS	SOCKET HEAD SET SCREW, 5/16-18 x 1/2	1
17	1024X12HHSTS	HEX HEAD SELF TAPPING SCREW 10-24 X 1/2" LONG	2
18	22866	SPRING HANDLE	1
19	1420WHN	1/4-20 WHIZ NUT	1
20	W90790	HOPPER BACK	1
21	W90788	HOPPER LID	1
22	90312	SOCKET, 15 AMP	1
23	632X38MS	ROUND HEAD MACHINE SCREW, 6/32 x 3/8 LONG	2
24	632HN	HEX NUT 6-32	2
25	832HN	HEX NUT 8-32	4
26	90413	FUSE 5 AMP	1
27	92095	FUSE HOLDER OUTER	1
28	92096	FUSE HOLDER INNER	1
29	W90553	FAN HOUSING	1
30	832X12MS	PHILLIPS HEAD MACHINE SCREW	4
31	90686	OUTER FAN 68 CFM	1
32	90893	FAN DIFFUSER	1
33	23985	VELCRO	1
34	90313	POWER CORD	1
35	90413	5 AMP FUSE	1
36	24714	WIFI ANTENNA EXTENSION CABLE	1
37	92194	IGNITER TUBE MOUNTING PLATE FOR CERAMIC IGNITER	4
38	92256	FAN ISOLATOR	1
39	1016X38HHTFS	HEX HEAD SLOTTED THREAD FORMING SCREW	6
40	1420X12SHCSSS	SOCKET HEAD CAP SCREW, STAINLESS	1
41	24678	WIFI ANTENNA	1
42	92315	HOPPER INSULATION	1

HOPPER ASSEMBLY



BRATWURST SLIDERS WITH BEER CHEESE SAUCE

Makes about 16 sliders

2 lb ground pork
1/4 lb ground bacon
Backwoods Bratwurst Seasoning
2 T Grannie's Hickory Mustard
Smokehouse Onions (recipe below)
IPA Jalapeño Cheese Sauce (recipe below)
Soft Pretzel Buns

Combine the ground meats, mustard and brat seasoning (dissolved in water) in the bowl of a stand mixer fitted with the paddle attachment. Mix on low until the meat mixture becomes tacky and holds together. Preheat cooker to 450°F. Form meat into 2 ounce patties. Grill until internal temperature reaches 165°F.

*Alternatively: You can purchase uncooked brats, uncase them and form them into patties.

Smokehouse Onions

2 large yellow onions, sliced thin
1/4 cup melted butter
1 1/2 Tbsp Cattleman's Tri-tip Seasoning

Toss the sliced onions in the melted butter. Season with Cattleman's Grill Tri-tip Seasoning. Smoke in a foil pan at 275°F for 1 hour, increase to 400°F and cook until soft and browning, about 45 minutes.

IPA Jalapeño Cheese Sauce

1 cup heavy whipping cream
6 oz white american cheese, grated
6 oz pepper jack, grated
6 fl oz your favorite IPA beer
1 Tbsp Grannie's Hickory Mustard

Bring the cream, beer and mustard to a simmer. Slowly whisk in cheeses. Season with salt and pepper.

Soft Pretzel Buns

3 cups warm water (110°F)
2 1/4 teaspoons (one package) active dry yeast
1 tablespoon sugar
2 teaspoons salt
2 cups bread flour
6 cups all-purpose flour
1/2-1 Cup baking soda
6 tablespoons melted butter, divided
Cattleman's Grill Grey Salt

Dissolve the sugar in the warm water. Sprinkle the yeast over the water and let sit and foam up for 5-6 minutes. Pour the yeast water into the bowl of a stand mixer. Combine the salt, bread flour, all-purpose flour, and 2 tablespoons of melted butter then add to the bowl. Mix on low for about 5-6 minutes. Dough should be pulled away from the sides of the bowl. Place dough in an oiled bowl, cover, and allow to rise for 1 hour (or until doubled in size). Fill a large pot with 8 cups water and 8 tablespoons (1/2 cup) baking soda. Stir to dissolve. Bring water to a low boil. If you need more water, just be sure to add a tablespoon of baking soda for

every cup of water. While the water heats up, divide the dough into about 30 small, roughly equal sized balls.

Preheat your cooker to 375°F. Working in batches, place the balls in the boiling water for one minute each, flipping halfway through cooking. Use a slotted spoon to remove them from the water, draining away as much water as you can. Place on a baking sheet lined with parchment paper. Rest for 15 minutes

Brush the tops of the pretzels with melted butter, score the tops and sprinkle on the sea salt. Bake at 375°F for 20-25 minutes, until tops are golden brown.

CHICKEN ARTICHOKE SKILLET PIZZA

Makes dough for 3-4 pizzas

Ingredients

Pizza dough (recipe below)

Pizza sauce (recipe below)

Grilled artichoke

Grilled chicken breast

Cattleman's Grill Italiano Seasoning

Baby spinach

Mozzarella, diced or grated

Olive oil

Step 1: Season your breasts with Cattleman's Grill Italiano Seasoning and grill at 400°F until internal temperature reaches 160°F. Rest five minutes. Dice.

Step 2: Assemble pizza: Preheat your cooker to 500°F. Stretch the dough to 14 inches. Place in an oiled 12" Lodge Cast Iron Skillet. Brush the crust with olive oil. Spread a layer of pizza sauce over the dough. Top sauce with spinach, then mozzarella, then diced grilled artichoke and chicken breast.

Step 3: Bake at 450°F until dough is cooked through, about 20 minutes.

Pizza Dough

500g Napoli Antimo Caputo 00 Flour

325g water

10g salt

5g dry active yeast

Combine all ingredients in a stand mixer. Mix until all flour is incorporated, then a minute longer. Place in an oiled bowl. Let rise until doubled in size. Divide in 3 or 4 pieces. Roll into balls. Let rest at least thirty minutes before stretching/rolling.

Pizza Sauce

1 (28 oz) can Strianese San Marzano Tomatoes

2 cloves garlic, minced

2 T fresh basil, minced

1 1/2 T sugar

1 1/2 T salt

Combine ingredients. Bring to a simmer. Taste and adjust seasoning.

Grilled Artichoke

2 artichokes
1 lemon, wedges
olive oil
Cattleman's Grill Italiano Seasoning

Using a very sharp or serrated knife, slice off the top 1/3 of the artichoke. Peel off the outer layers of leaves, starting at the base. Trim any remaining leaf tips with scissors. Rub all trimmed surfaces with lemon, as you go. Peel the stem with a peeler or paring knife. Cut the entire Artichoke in half, through the stem. Place the halves in a pot of simmering water. Cook 15-20 minutes, until stem is tender. Remove from water. When cool, scoop out the choke (the fuzzy material where the stem meets the base). Rub the halves with olive oil. Season with Cattleman's Grill Italiano Seasoning. Grill on a hot grill (450°F+), until you have nice grill marks. Peel off the outer leaves. The "meat" at the base of the leaf is edible, good for snacking. When all leaves are removed, you're left with the heart and stem. Dice these to add to your pizza.

COFFEE CRUSTED FILET MIGNON WITH CHIPOTLE AIOLI

Filet mignon steaks
Sweetwater Spice Ancho Chipotle Bath
Cattleman's Grill Smoky Chipotle Steak Seasoning
Chipotle Aioli (recipe below)
Directions

Step 1: Place your steaks in a zip top bag with the Sweetwater Spice Ancho Chipotle Bath. Marinate for 45 minutes.

Step 2: Preheat your Yoder Smokers YS640s Pellet Smoker to 475°F, set up with GrillGrates. Remove the steaks from the marinade, and wipe off the excess with a paper towel. Season with Cattleman's Grill Smoky Chipotle. Let sit five minutes.

Step 3: Grill the steak on each side for about five minutes, getting nice grill marks. Grill until the internal temperature reaches 120°F. Pull and rest five minutes before slicing. Serve with Chipotle Aioli.

Chipotle Aioli

1 egg yolk
1 chipotle in adobo sauce
1/2 tsp adobo sauce
1 clove garlic, chopped
1 Tbsp lime juice
1/2 cup grape seed or vegetable oil (don't use olive oil)

Directions

Combine all ingredients except oil in a food processor. Process to puree ingredients, then with the processor running add the oil very slowly until it's all incorporated.

FRENCHED RACK OF PORK

Smoke on Wheels BBQ Marinade
Cattleman's Grill Steakhouse
Cattleman's Grill California Tri-tip

Place the frenched rack of pork loin in a large (2.5 gal) zip top bag. Cover meat with Smoke on Wheels Marinade. Squeeze the air out of the bag, seal it, and allow the pork to marinate for six hours. Remove the pork from the marinade. Preheat your cooker to 325°F. Wipe the excess marinade off the pork, but do not rinse. Use the residual marinade to bind the rubs to the pork. Cover the meat with equal parts Cattleman's Grill Steakhouse and Cattleman's Grill Tri-tip. Rest meat for 10 minutes. Cook at 325°F until internal temperature reaches 140°F-145°F. Remove. Cover loosely. Let rest 15 minutes. Slice in-between the bones for single chop servings.

GRILLED TRI-TIP

1 beef tri-tip
Sweetwater Spice Tres Chiles
Cattleman's Grill California Tri-tip Seasoning
Oakridge BBQ Santa Maria Grill Seasoning

Directions

Step 1: Marinate the tri-tip in the Sweetwater Spice Tres Chiles according to the provided instructions.

Step 2: Preheat your Yoder Smokers YS640s to 500°F, and set up GrillGrates for direct grilling. Apply a 50/50 mixture of Cattleman's Grill California Tri-tip and Oakridge BBQ Santa Maria seasonings to the surface of the tri-tip. Let rest until rub looks wet, about 10 minutes.

Step 3: Grill on both sides over direct heat until good grill marks are achieved. Move to indirect heat. Cook to an internal temperature of 125°F-130°F. Rest 10 minutes before slicing, across the grain of the meat.

STUFFED PORK CHOPS

4 Servings

4 pork chops
1 1/2 C cornbread, crumbled
2 T golden raisins
1/4 C walnuts, toasted, roughly chopped
1/4 C dried cherries, halved
1/4 C buttermilk
1/2 t black pepper
2 t fresh sage, thinly sliced
1/2 t kosher salt
1/2 C bourbon
Smoke on Wheels Pork Marinade & Injection
John Henry Pecan Rub

Directions

Step 1: Place the dried cherries and raisins in a small bowl. Pour the bourbon over the top. Place chops into container or bag and cover with Smoke on Wheels Pork Marinade & Injection. Refrigerate for 2 hours.

Step 2: Remove chops from container, cut horizontal pockets in each pork chop for stuffing. Preheat your Yoder Smokers YS640s to 450°F, set up with GrillGrates.

Step 3: Remove the fruits from the bourbon. Combine them with the rest of the ingredients, and put into piping bag that is not fitted with a tip. Pipe each chop full with cornbread mixture. Alternatively, you can stuff the filling by hand, or use a zip top bag as a makeshift piping bag. Just put the filling in the bag, and cut off one corner. Once the chop is stuffed, dust with John Henry Pecan Rub.

Step 4: Grill the chops on medium high heat for about 6 minutes on each side. Turn each chop 45 degrees after 3 minutes to mark. Remove from the grill when the internal temperature reaches 145°F.

TURKEY ROULADE

Serves 4-6

2 turkey breasts
6 slices prosciutto
Smoke on Wheels BBQ Marinade
2 (6-8") strips of Frogmat

For the stuffing:

4 C cornbread, crumbled
1/2 C shallots, sliced
1/2 C pecans, toasted, chopped
1 T fresh thyme, leaves only
1/2 C maple syrup
2 T heavy cream

Directions

Remove the turkey breast from the breast bone if necessary. Pull the skin off and discard. Butterfly the breast, to make a flat, even piece of meat. Marinate in Smoke on Wheels BBQ Marinade for one hour. Meanwhile, over low heat, cook the shallots in a tablespoon of oil, with a pinch of salt until lightly browned. Combine the remaining stuffing ingredients in a bowl and mix to incorporate. Preheat cooker to 325°F. Remove the turkey from the marinade. Wipe off excess marinade. Lay the breast flat on top of the Frogmat. Place three slices of prosciutto over the breast. Then, evenly spread the stuffing over the prosciutto. Roll the breast up. Wrap it with Frogmat. Tie the Frogmat with butcher's twine. Cook until internal temperature reaches 165°F, about one and a half to two hours. Rest 10 minutes. Slice to serve.

STACKED BEEF ENCHILADAS

Serves 6-8

2 lb ground beef
1 Cup 505 Southwestern Chipotle Honey Roasted Chiles
3/4 Cup yellow onion, diced
2 Tablespoons green onions, sliced
2 (16 oz) jars 505 Southwestern Enchilada Sauce

1 Tablespoon flour
1 Tablespoon butter
1 Cup beef stock
2 canned chipotles in adobo sauce, diced (2 peppers, not 2 cans)
1/2 t cumin
1 t Cattleman's Grill 8 Second Ride Carne Asada Seasoning
1 lb cheddar cheese, grated
12 corn tortillas

Directions

Combine beef, onions and 505 Southwestern Chipotle Honey Roasted Chiles in a skillet. Cook the beef all the way. Mix in the green onions. Season with salt. Set mixture aside. In a separate skillet, melt the butter, over medium heat. Add the flour, cumin, chipotles in adobo and Cattleman's Grill Carne Asada and whisk constantly for about one minute. Slowly whisk in the beef stock. Once all of the stock is incorporated, add in the 505 Southwestern Enchilada Sauce. Season with salt. Keep sauce warm. Cover the bottom of a skillet with oil (grape seed is best). Fry each tortilla on both sides, until lightly brown & slightly crispy. Immediately transfer the tortilla to the warm sauce. Dip the tortilla entirely with tongs, then set aside on a sheet pan. Repeat this process until all tortillas are fried and soaked in sauce. Cover the bottom of a half sized aluminum foil steam table pan (12.75" X 10.3") with the enchilada sauce. Lay out a layer of 4 tortillas. Cover tortillas with one third of your beef mixture, then one third of your cheese. Repeat this process until you've used all the ingredients. Bake in your cooker at 400°F, until the top is lightly browned, about 40 minutes.

BOURBON PEACH & BLUEBERRY COBBLER

Filling:

6 large peaches, sliced
1 C blueberries
1/2 C bourbon
1/4 C sugar
2 T cornstarch
2 t cinnamon
1/2 t vanilla extract
juice of half a small lemon

Topping:

1 C flour
1/2 C rolled oats
1/2 C sugar
1/2 t salt
3/4 C unsalted butter, small cubes
2 T heavy cream

Directions

Step 1: Preheat your cooker to 400°F. Combine the filling ingredients in a bowl and toss to distribute evenly.

Step 2: Make the topping: In a large bowl, mix topping ingredients until all ingredients are incorporated. Dump filling into a Lodge Logic 12" Cast Iron Skillet. Crumble the topping over the filling.

Step 3: Bake until topping is golden brown and filling is thick and bubbling, about 1 hour. Serve warm with vanilla yogurt or ice cream.

NOTES:

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NOTES:

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WARRANTY INFORMATION

Your Yoder YS640 is fully backed by our exceptional customer support and warranties. The 10-gauge cooking body is warranted for 10 years, the control system for 3 years, and the ceramic igniter for 3 years. Tires and casters are warranted for 1 year against manufacturing defects. Register the warranty information online at: www.yoder-smokers.com

Firmware updates are offered to users via wifi connection.

For product support contact: customerservice@yodersmokers.com

Visit the Yoder Smokers forum for product information, discussion and advice on products & accessories: <http://community.yodersmokers.com>



★ **YODER SMOKERS** ★

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