USER MANUAL

P7 X.5-PRO-WiFi CONTROLLER Replacement for *Pit Boss*

General Description:

P7 X.5-PRO-WiFi Controller is the replacement control board for:

Pit boss Series 3/4/5/7 Vertical Pellet Smoker.

We've added some useful features and **2 PID temperature controlling programs** to the original control board so that you can better control your grill and make the perfect grilling food.

Illustration:

CONTROL	DESCRIPTION
⏻	Power Button, press to start, press and hold to shut down.
SELECT F/C	Press to toggle function menu, press and hold to switch temperature units between F & C.
PRIME	Press and hold the"Prime"Button to activate an extra feed of pellets to the Burn Pot. This can be used to add more fuel to the fire just before opening the barrel lid, resulting in a quicker heat recovery time. It can also be used to add more fuel while smoking, to increase the intensity of clean smoke flavor. Overfeeding the Burn Pot may damage to grill barrel paint.
COOK 00:00	Timer, used to time counting or countdown.
PROBE 1 noP	Indicates the meat probe temperature when probe is connected."noP"displayed when meat probe is not connected.
87 F	Indicate the grill (ambient) temperature.
ACT SET	The set temperature and the actual temperature of the grill and meat probes are alternately displayed.
	Indicates the running status of Auger, Igniter and Fan respectively.
	Meat probe connection ports.
	Rotary Knob.
	The flashing WiFi indicator light signifies connection in progress, while a solid light indicates successful connection.

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BLUETOOTH & WIFI CONNECTIVITY

New Function - APP Control (*Scan to Download APP*)

Download on the App Store

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APP

Official Site: https://ifire-tech.com/ e-Mail: customer_service@ifire-tech.com

Before You Use

ABOUT PID TEMPERATURE CONTROLLING PROGRAM:

Program Code	Cooking Surface Area Unit: SQIN	Grill Size	PID
4PP	3/4/5	Small/Middle	YES
7PP	7	Large	YES

NOTE: As the grill reaches the set temperature, the PID regulates it by cycling the auger and fan on and off, creating a "puffing" sound. This is normal.

OPERATING INSTRUCTIONS

➢ ***APP Control*** *(Recommended,*Full guide: Wireless Setup Appendix*)*

- Remote adjustment via smartphone;
- Real-time temperature monitoring.

Full guide: Wireless Setup Appendix

Quick Start Guide v1.0（*Controller Reset Functions*）

➢ WiFi Reset

Use When: Reconnect to a new network.

Action:

1. Power ON controller;
2. Long press the rotary knob ≥5 seconds until feedback occurs.

➢ Factory Reset

Use When:

- Failed firmware updates (bricked controller);
- Unresponsive controller or restore original settings needed.

Action:

1.Unplug power cord completely;
2.Press and firmly hold the rotary knob;
3.Replug power while continuing to hold;
4.Keep holding until power LED changes from blinking to solid;
(*DO NOT release until LED stops blinking completely*)
5.Release rotary knob when power LED remains solid.

➢ *Manual Control*

- Traditional knob operation;
- No WiFi required.

1. TEMPERATURE CONTROLLING PROGRAM SETTING

Select a PID program matching your pellet smoker model.

(1) Press and hold the **"Select"** button when the unit is not energized (unplug);
(2) Energize the unit (plug in) then release the**"Select"**button;
(3) Press the"Power"button to enter the Program Setting Mode, the selected code is showed as "**P**-code figures"; the others are showed as "**C**-code figures";
(4) Rotate the knob to choose a program code for your pellet grill;
(5) After selecting the right program code for your pellet grill, press "Select" button to confirm, the selected program code will be showed as"P-4PP or P-7PP", indicating the setting is done.
(6) Unplug the unit.

(Critical NOTE: Immediately unplug (Pull power cord from outlet)! DO NOT press "Power" button to shut down!) *(! Pressing the Power button after selecting program code will cancel programming.)*

(7) Next time you turn on the unit, the selected program code is displayed on the screen in the first second.

2. START

● BOOT:

Plug in, the Power button light flickers, indicating that the controller is in standby status, press the**"Power"**button to boot.

● SET THE GRILL TEMPERATURE:

"---"is showed on the screen indicating that you can set the desired grill temperature (**it will exit setting if you do noting in 5 seconds**). Press the **ROTARY KNOB** to enter temperature setting again, rotate the knob to set your desired temperature (**NOTE:** in Version **4PP**, **7PP**, temperature can be set in units of 1 degree, others versions in units of 25 or 50 degree.), then press the **ROTARY KNOB** to confirm.

3. MENU SELECTION

Press the **"Select"** button to enter menu selection. The menu order will jump in the loop of "Timer setting - Meat probe 1 target temperature setting - Meat probe 2 target temperature setting - Exit setting"(when a menu is unconfigurable, it will skip the menu to the next menu). The corresponding display area flickers when you turn to a certain menu, press the **ROTARY KNOB** to enter the setting process.

● TIMER SETTING:

Press the**"Select"**button to toggle the menu , when the timer display area flickers, press the **ROTARY KNOB** to enter the timer setting. **"┘"** or**"┐"** will be showed before the timer figures, **"┘"** represents time counting,**"┐"** represents time countdown.

➢ ***TIME COUNTING:*** Press the **ROTARY KNOB** to enter counting or countdown setting, rotate the knob to choose **"┘"** , press the **ROTARY KNOB** to confirm, time counting starts.
➢ ***TIME COUNTDOWN:*** Press the **ROTARY KNOB** to enter counting/countdown setting, rotate the knob to choose**"┐"** , press the **ROTARY KNOB** to confirm, the timer figures flicker, rotate the knob to set the hour, press the **ROTARY KNOB** to confirm, rotate the knob to set the minute, press the **ROTARY KNOB** to confirm, time countdown starts. When it count to 0, the buzzer beeps, press any keys to stop the beep.
➢ ***COUNTING CANCEL:*** Press**"Select"**button to toggle the timer menu, press the **ROTARY KNOB** to enter timer setting, press and hold **ROTARY KNOB for 3 seconds** to cancel.

● MEAT PROBE TARGET TEMPERATURE SETTING:

You can set the meat probe target temperature only when the probe is inserted in the probe jack. Press **"Select"** to toggle menu, when"Probe 1 or 2"flickers, press the **ROTARY KNOB** to enter setting, rotate the knob to set target temperature (90F to 250F), press the **ROTARY KNOB** to confirm. When the actual temperature of the meat probe reaches or is greater than that of the target temperature, the buzzer beeps. Press any key to dismiss the alerts, the meat probe target temperature is initialized.

4. REAL-TIME CIRCUIT MONITORING

The controller can automatically monitor the faults (e.g. bad contact, short circuit, open circuit, load current out of normal range) of its connected parts (**Auger, Ingiter and Fan**).

● SYSTEM OFF:

This function is turned off by default. When it is off, if all connected parts are working normally, the corresponding icon does not light on. If the system finds that some of the connected parts is anomaly, the corresponding icon flickers, indicating that there is a problem with it. Make sure wire connections are firmly connected and dry, if it still does not work, replace the fault part. If you are confident that the fault part does not affect the proper operation of the grill, you can ignore the fault alert, by which, however, may cause the grill to run unstable or even a certain probability of burning the controller fuse.

● SYSTEM ON:

Press the **"Select"** and **"Prime"** buttons at the same time to activate the detection system when the controller is on. In this state, all connected parts icons are solid, indicating that all parts are running normally. When some part is detected anomaly, the corresponding icon flickers, the error code shows, the buzzer beeps, and the grill stops working. The controller is locked and inoperable. Power needs to be cut off, you should make sure wire connections are firmly connected and dry, if it still does not work, replace the faulty part.

● NOTE:

When the fault detection system is activated, if a part's current load is out of range, the controller will stop working. However, this doesn't always mean the part is fully damaged. You can bypass the "Fault Detection" by turning off the system to continue using the unit, but it's advisable to replace the faulty part soon to prevent unexpected issues if it fails completely.

5. "ACT" AND "SET" TEMPERATURE

The real-time and set temperature of the grill and meat probes are alternately displayed on the controller screen. When **"ACT"**icon lights on, the real-time temperatures of the grill and meat probes are displayed. When **"SET"**icon lights on, the set temperatures of the grill and meat probes are displayed.

6. SHUT DOWN

Do not cut the power supply right after you done use. **Cool down program** will be running in order to prevent cases such as fuel pipe scorched, ash stacking in burn pot and hopper backfire. This process will usually last 15 mins.

TROUBLESHOOTING

Problem	Cause	Solution
No Power Lights On The Control Board	Power Button	Press the Power Button. Try another attempt and hold for two seconds to verify connection.
	Not Connected To Power Source, GFCI Outlet Has Tripped	Ensure smoker is plugged into a working power source. Reset breaker. Ensure GFCI is a minimum 10 Amp service. Ensure all wire connections are firmly connected and dry.
	Fuse Blown On The Control Board	Remove cooking components from the main smoke cabinet. Turn the unit onto its side, and remove the screws on the rear side of the Control Board. Check the fuse for a broken wire or if the transparent fuse tubing has turned black. If yes, manually replace with a new fuse.
	Faulty Control Board	Control Board needs to be replaced.
No Power Lights On The Control Board	Power Button	Press the Power Button. Try another attempt and hold for two seconds to verify connection.
	Not Connected To Power Source, GFCI Outlet Has Tripped	Ensure smoker is plugged into a working power source. Reset breaker. Ensure GFCI is a minimum 10 Amp service. Ensure all wire connections are firmly connected and dry.
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	Faulty Control Board	Control Board needs to be replaced.
Fire In Burn Pot Will Not Light	Auger Not Primed	Before the unit is used for the first time or anytime the hopper is completely emptied out, the auger must be primed to allow pellets to fill the burn pot. If not primed, the igniter will timeout before the pellets ignite. Follow Hopper Priming Procedure.
	Auger Motor Is Jammed	Remove cooking components from the main smoke cabinet. Press the Power Button to turn the unit on, turn Temperature Control Dial to SMOKE, and inspect the auger feed system. Visually confirm that the auger is dropping pellets into the burn pot. If not operating properly, call Customer Service for assistance or a replacement part.
	Igniter Failure	Remove cooking components from the main smoke cabinet. Press the Power Button to turn the unit on, turn Temperature Control Dial to SMOKE, and inspect the igniter. Visually confirm that the igniter is working by placing your hand above the burn pot and feeling for heat. Visually confirm that the igniter is protruding approximately 13mm / 0.5 inches in the burn pot.
Flashing Dots On LED Screen	The Igniter Is On	This is not an error that effects the unit. Used to show that the unit has power and is in Start-Up mode (igniter is on). The igniter will turn off after five minutes. Once the flashing dots disappear, the unit will begin to adjust to the desired temperature selected.
Flashing Temperature On LED Screen	Smoker Temperature Is Below 65°C /150°F	This is not an error that effects the unit; however, it is used to show that there is some risk that the fire could go out
"ErH" Error Code	The Smoker Has Overheated, Possibly Due To Grease Fire Or Excess Fuel.	Press and hold the Power Button to turn the unit off. Once cooled, press the Power Button to turn the unit on, then select desired temperature. If error code still displayed, contact Customer Service
"Err" Error Code	Grill Temperature Probe Wire Not Making Connection	Access the electrical components on the base of the unit and check for any damage to the Grill Temperature Probe wires. Ensure the Grill Temperature Probe spade connectors are firmly connected, and connected correctly, to the Control Board.

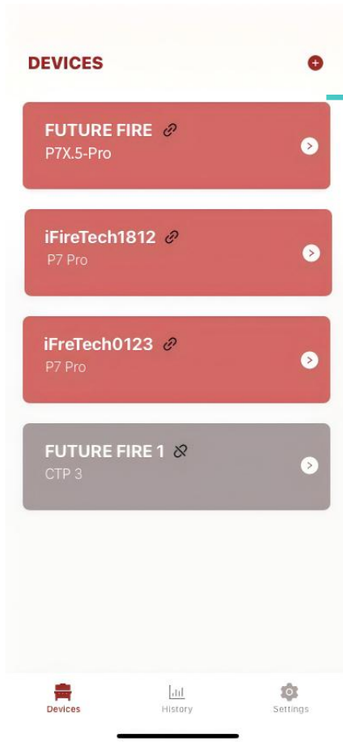
TROUBLESHOOTING

Problem	Cause	Solution
"ErL" Error Code	Ignition failure	The pellets in hopper is insufficient, the feeding pipe is scorched and blocked, the hatch is closed
"Er1" Error Code	Igniter anomaly	Check the wiring, connect it firmly, If it doesn't work, change the damaged ignitor.
"Er2" Error Code	Auger anomaly	Check the wiring, connect it firmly, If it doesn't work, change the damaged auger.
"ErF" Error Code	Fan anomaly	Check the wiring, connect it firmly, If it doesn't work, change the damaged fan.
"noP" Error Code	Bad Connection At Connection Port	Disconnect meat probe from connection port on the Control Board, and reconnect. Ensure the meat probe adapter is firmly connected. Check for signs of damage to the adapter end. If still failed, call Customer Service for replacement part.
	Meat Probe Damaged	Check for signs of damage to the wires of the meat probe. If damaged, call Customer Service for replacement part.
	Faulty Control Board	Control Board needs to be replaced. Contact Customer Service for a replacement part.
Thermometer Shows Temperature When Unit Off	Smoker Has High Ambient Temperature Or Is In Direct Sun	This will not harm the smoker. The internal temperature of the main cabinet has ambiently reached or exceeded 54°C / 130°F. Move the smoker into a shaded area. Prop the cabinet door open to reduce the internal temperature.
Smoker Will Not Achieve Or Maintain Stable Temperature	Insufficient Air Flow Through Burn Pot	Check burn pot for ash build-up or obstructions. Check fan. Ensure it is working properly and air intake is not blocked. Follow Care and Maintenance instructions if dirty. Check auger motor to confirm operation, and ensure there is no blockage in the auger tube. Once all the above steps have been done, start the smoker, set temperature to SMOKE and wait for 10 minutes. Check that the flame produced is bright and vibrant.
	Lack Of Fuel, Poor Fuel Quality, Obstruction In Feed System	Check hopper to check that fuel level is sufficient, and replenish if low. Should the quality of wood pellets be poor, or the length of the pellets too long, this may cause an obstruction in the feed system. Remove pellets and follow Care and Maintenance instructions.
	Temperature Probe	Check status of temperature probe. Follow Care and Maintenance instructions if dirty. Contact Customer Service for a replacement part if damaged.
Smoker Produces Excess Or Discolored Smoke	Grease Build-Up	Follow Care and Maintenance instructions.
	Wood Pellet Quality	Remove moist wood pellets from hopper. Follow Care and Maintenance instructions to clean out. Replace with dry wood pellets
	Burn Pot Is Blocked	Clear burn pot of moist wood pellets. Follow Hopper Priming Procedure.
	Insufficient Air Intake For Fan	Check fan. Ensure it is working properly and air intake is not blocked. Follow Care and Maintenance instructions if dirty.

*APP Control Full guide: Wireless Setup Appendix**

Wireless Setup Appendix

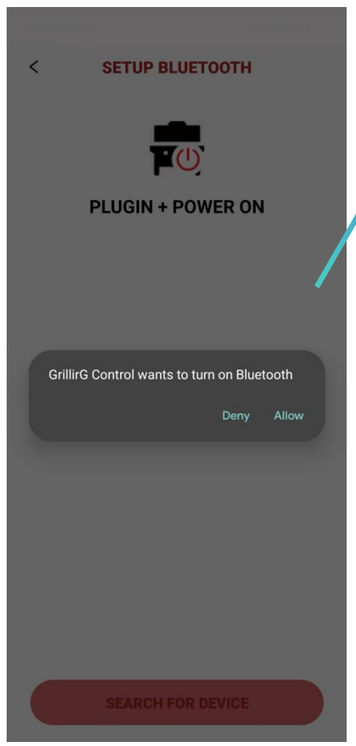
➢ Device Pairing Process 1.0



① Click the "Add" button to navigate to the Bluetooth search page.

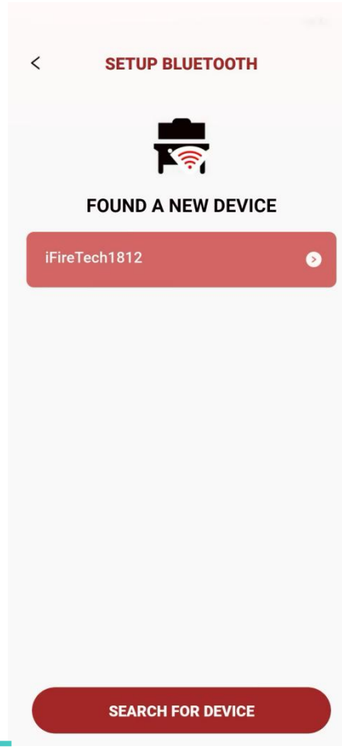
③ If Bluetooth is disabled, a prompt will appear: "Please allow Bluetooth access."

② Click the "SEARCH FOR DEVICE" button to scan for Bluetooth devices.



④ When the target device controller is in network configuration mode, the target Bluetooth device will appear in the scan results.

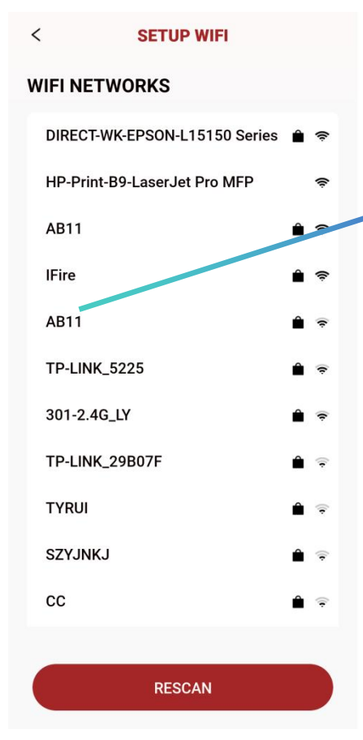
⑤ Select the target device to initiate Bluetooth connection. Success connects to a confirmation page; failure triggers a retry prompt.



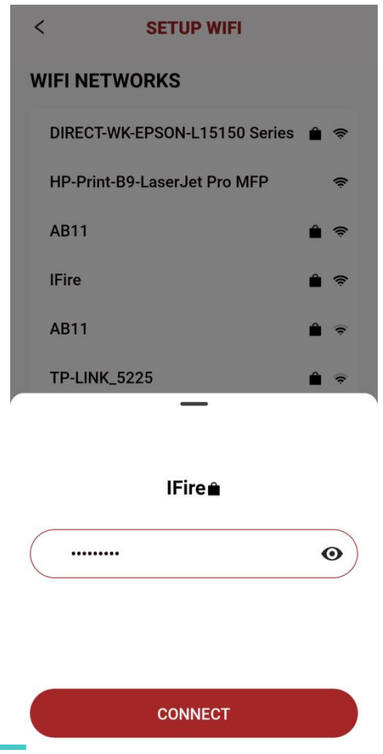
⑥ Click "CONTINUE" to enter the Wi-Fi password setup page.

Wireless Setup Appendix

➢ Device Pairing Process 1.0



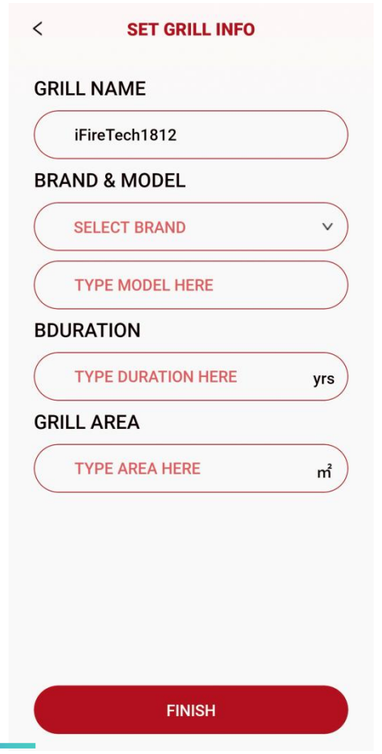
⑦ Click an available Wi-Fi network to activate the password input dialog.



⑧ Enter the correct Wi-Fi password and click "CONNECT" Successful connection redirects to a network configuration waiting page.

⑨ Remain on the waiting page during network configuration.

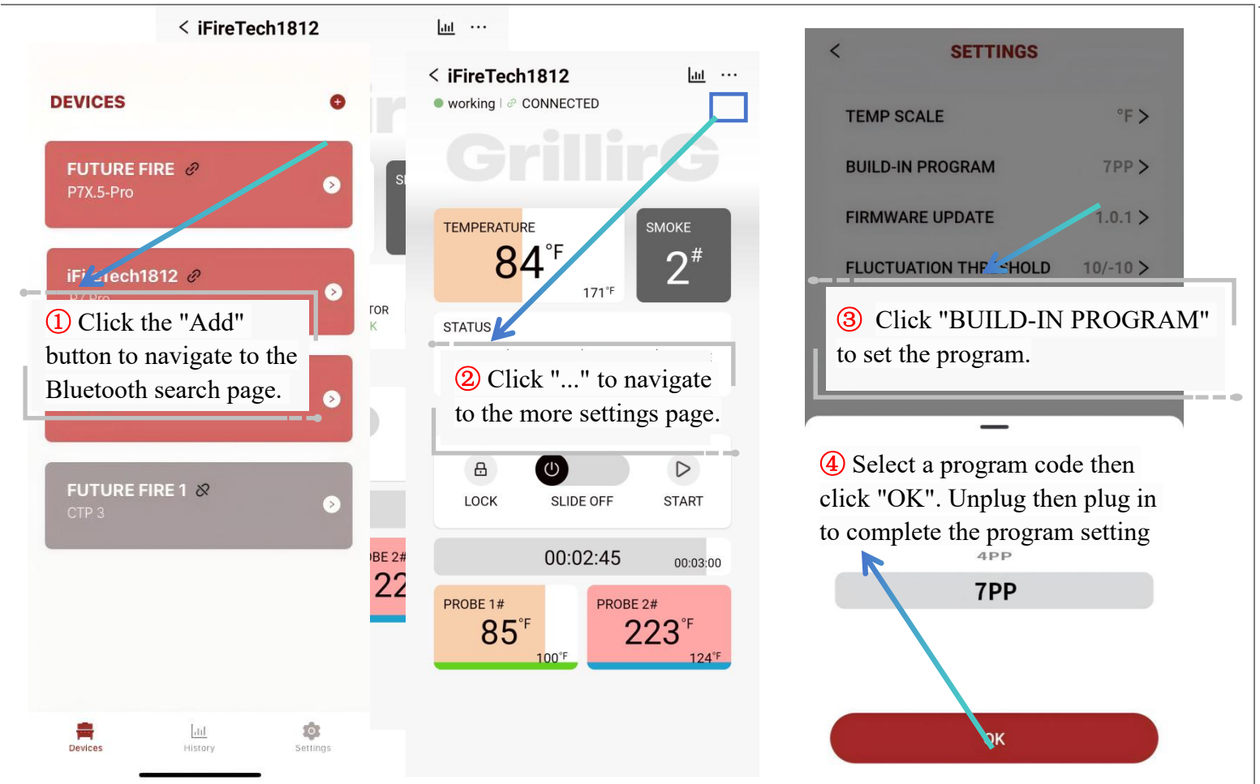
⑩ Successful configuration automatically binds the device and redirects to the device info setup page.

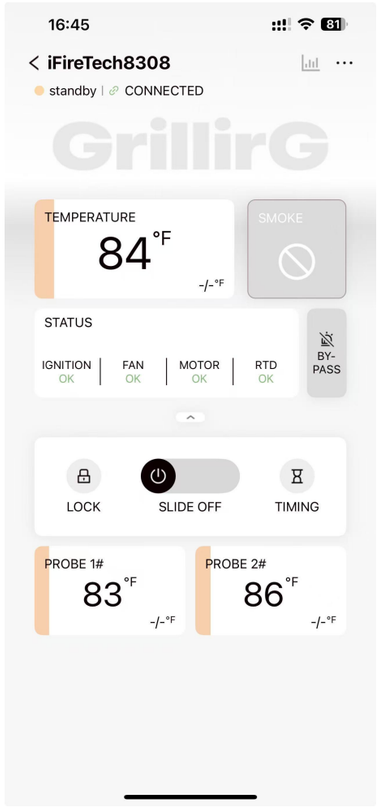


⑪ After completing device info setup, click "FINISH" to return to the device list. Pull down to refresh and view the newly bound device.

Wireless Setup Appendix

➢ Built-in Program Adjustment





APP Control Guide

➢ **Standby | CONNECTED** (Current system status)

➢ **TEMPERATUR Section** (chamber temperature reading/setting)

➢ **STATUS**

IGNITION **OK** | FAN **OK** | MOTOR **OK** | RTD **OK** | BYPASS

➢ **SAFETY CONTROLS**

1. LOCK

Screen lock to prevent accidental touches. Long press to UNLOCK.

2. SLIDE OFF

Remote shutdown ONLY (Remote power-on is disabled for safety).

3. TIMING

Programmable cooking timer with alerts.

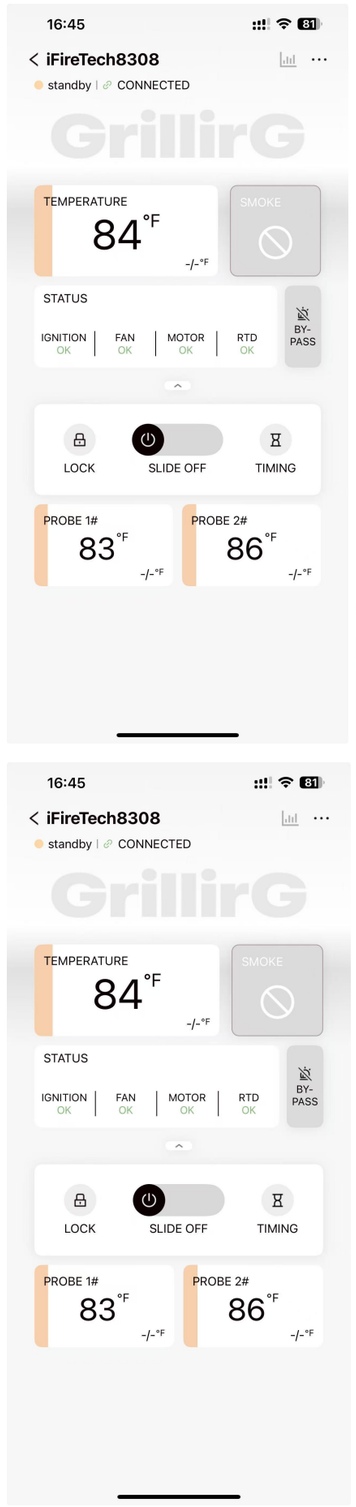
Long press "TIMING" or "PAUSE" to CANCEL TIMING.

4. Meat Probes (PROBE 1# / PROBE 2#)

Meat probes temperature reading/target temperature setting.

Wireless Setup Appendix

➢ GrillControl Hub (*Error Alerts & Causes*)



Error Alerts & Causes

Component Status Checks: *Potential Error Alerts & Causes*

➢ **IGNITION:**

1. FAULT: Ignition rod not installed, rod specifications do not match, or circuit faults in the ignition rod section.
2. TIMEOUT: Fails to heat up for a long time after entering working mode.

➢ **FAN**

FAULT: Fan not installed, fan specifications do not match, or circuit faults in the fan section.

➢ **MOTOR**

FAULT: Motor not installed, motor specifications do not match, or circuit faults in the motor section.

➢ **RTD TEMP**

1. ERROR: Temperature probe not installed, probe specifications do not match, or circuit faults in the probe section.
2. OVER-LIMIT: The Smoker Has Overheated, not controlled by the controller.

About BYPASS

➢ **BYPASS ON:**

If a component experiences a load (Fault), the controller can still be used. This function is applicable only to load anomaly in the ignition rod, fan motor, and auger motor.

➢ **BYPASS OFF:**

If a component load is anomaly (Fault) then the controller triggers an alarm (making it unusable), the bypass can now be activated to suppress the alarm. However, operating the equipment in bypass mode when anomaly load occurs may lead to unpredictable issues .

NOTE: *Regardless of whether the controller is in BYPASS mode, it cannot be used in the case of IGNITION (TIMEOUT) and RTD (ERROR, OVER-LIMIT) states.*

Official Site: https://ifire-tech.com/ e-Mail: customer_service@ifire-tech.com