UPGRADED PID PRO CONTROLLER USER MANUAL

This digital PID pro controller is a perfect replacement for BAC365/BAC236 part, compatible with Traeger grill models: Pro 20, 22, & 34, Texas Elite 34, Lil Tex 22, JUNIOR ELITE 20, Ridgeland, Heartland, Mesa 22, Century 22/34, Silverton (2019), and Bronson 20. We retrofit the OEM controller by adding PID programs and some practical functions to it, by which you can add more delicate flavor to your grilling food.

1. START:

1) Turn the Temperature Control Dial to "SMOKE", the actual temperature is displayed on the screen, the fan, auger motor, and igniter rod start working.

2) Turn the Temperature Control Dial to specific temperature, the setting temperature flickers five times and then back to the actual temperature.

3) Turn the Temperature Control Dial to "Shut Down Cycle", the fan will be working for 10 more minutes to burn out the remaining pellets in the burning chamber.

Note: please do not turn off the controller during this period.

2. SMOKE MODE :

Smoke Mode runs at 180°F to 200°F, there are 10 options: P0~P9. The specific working pace of the auger motor is as below(factory default setting is P2):

Settings	P0	P1	P2	P3	P4	P5	P6	P7	P8	P9
Feeding Time (sec)	15	15	15	15	15	15	15	15	15	15
End Time (sec)	45	55	65	75	85	95	110	125	140	150

The "P" Set Button is used to select one of the 10 fine tunings when the Temperature Control Dial is set to the Smoke Setting. With a short push of the button, the setting increases from P0 to P9, then repeats.

3. COOK MODE :

Cook mode has 9 temperature options ranging from 225℉ to 450 ℉.

When actual temperature < setting temperature, the auger motor keeps delivering pellets; When actual temperature > setting temperature, the auger motor works in Smoke Mode; When actual temperature > 550°F, ErH is displayed, the hot rod and auger stops working, the fan keeps working for ten minutes and then stops working.

4. PID PROGRAMMING:

the controller provides 3 PID programs to match different size of grills (cooking surface area).

Activate PID Programming:

1) The Power Switch (ship-type switch) on OFF position, the Temperature Control Dial on Shut Down Cycle.

2) Hold "Probe Selector" button and then switch to ON, the controller shifts to the Advanced Mode setting which allows you to choose appropriate program according to the cooking surface area of the grill.

3) Release the "Probe Selector" button and turn the dial to choose a program code. Program code and corresponding cooking surface area are shown below.

4) Select the appropriate program and switch off the power. When you switch on the power again, the system will run with the new program.

Program Code	Cooking Surface Area Unit: SQIN	Grill Size	PID
Pr0 (default)	>650	Large, Super Large	YES
Pr1	≤650, ≥450	Middle	YES
Pr2	<450	Small	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.

5. READOUT TEMPERATURE COMPENSATION:

This is designed to calibrate the temperature deviation between RTD probe readout and actual temperature of the grill.

ACTIVATE THE READOUT TEMPERATURE COMPENSATION:

1) The Power Switch (ship-type switch) on OFF position, the Temperature Control Dial on Shut Down Cycle.

2) Hold "P Set" button and then switch to ON, the controller shifts to the Chef Mode setting.

3) Release the "P" Set button and turn the dial to choose a compensation value (as follows "-200; -150; -100; -50; -20; +20; +50; +100; +150; +200") to the readout value of the grill ambient probe.

4) Select an appropriate compensation and switch to off, the system will retain your choice.

If the grill probe detects a temperature that's 100°F lower than the central zone of the grill grate, set a "+100°F" compensation value on the screen. For example, if you want to grill at 450°F and the probe reads 350°F, the LCD will display "350°F + 100°F = 450°F," reflecting the actual temperature at the center of the grill grate. The controller will then maintain this target temperature.

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.

7. SWITCH TO ºC OR TO ºF

In the shutdown state, toggle the switch at the left side of the control board to change the temperature readout on the LCD screen, as preferred. Default is set to Fahrenheit.

8. UNDERSTANDING THE PROBES

1) GRILL PROBE

Located inside the main barrel, on the left wall, is the Grill Probe. It is a small, vertical piece of stainless steel. The Grill Probe measures the internal temperature of the unit. When the temperature is adjusted on the Control Board, the Grill Probe will read the actual temperature inside the unit and adjust to the desired temperature.

IMPORTANT: The temperature of your unit is highly affected by ambient outdoor weather, quality of pellets used, flavor of pellets, and the quantity of food being cooked.

2) MEAT PROBE

The meat probe measures the internal temperature of your meat in the grill, similar to your indoor oven. Plug-in the meat probe adapter to the meat probe connection port on the Control Board and insert the stainless steel meat probe into the thickest portion of your meat and the temperature will be displayed on the control board.

9. ERROR CODE

1) ErH, indicates the temperature is too high. When ErH is displayed, the hot rod and auger motor stop working, the fan keeps working for ten minutes and then stops working.

2) Er1, indicates the probe fault. When Er1 is displayed, the hot rod and motor stops working, the fan keeps working for ten minutes and then stops working.

3) ErL, indicates that the hot rod works for more than 30 minutes. When ErL is displayed, the hot rod and motor stops working, the fan keeps working for ten minutes and then stops working.

4) ErP, indicates that the Temperature Control Dial is not at Shut Down Cycle after being electrified. When it is electrified again after unexpected power failure, ErP is displayed. You need to reset the switch and dial before you can turn on it again.