Forno Bravo Burner FAQ

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Section One
Basic Burner Set Point Overview

SP1

- Set point temperature.
- This should be the setting you want your oven to cook at.
- Factory setting is 200 F

SP1d

- Is the trigger for the Burner #1 to fire.
- Factory setting is -10 F

SP2

- Second set point temperature.
- This should be the setting you want Burner #2 to assist Burner #1
- Factory setting is -10 F
- Usually, Burner #1 is sufficient to bring you back to temperature when there is a 10 degree drop in temperature.

SP2d

- Is the trigger for Burner #2 to fire.
- Factory setting is -20 F
- This number is cumulative with SP2, so if SP2 is -10 F and SP2d is -20 F, Burner #2 will fire at -30 F below SP1 setting.

Example of Proper Operation:

- Cook temperature is 700 F (SP1)
- At 690 F you want Burner #1 to fire (SP1d -10F)
- At 670 F you want Burner #2 to assist Burner #1 (SP2 -10 F, SP2d -20 F)

NOTE: You can vary SP1, SP1d and SP2d settings, DO NOT change SP2 from -10 F as this can lead to safety issues and system lock out errors.

When starting your oven:

- Burner #1 will fire and Burner #2 will delay 5 to 7 seconds before firing.
- As your oven approaches the SP1 setting (700 F), at the SP2 setting, Burner #2 will shut off (690 F);
- At your control setting, Burner #1 will shut off (700 F)

When bringing your oven back to temperature:

- Burner #1 will fire at the SP1d setting (690 F)
- If the oven regains SP1 Temp (700 F) before temperature reaches the accumulated temperature of SP2 and SP2d (-30 F or 670 F), Burner #2 will never fire.
- If the oven temperature drops 670 F, than Burner #2 will receive a signal to fire. After 5 to 7 seconds from hitting this temperature, Burner #2 will fire provided temperature is still below the 670 F.

- With both Burners running, when the temperature reaches SP2 setting (-10 F or 690 F), than Burner #2 will shut down and Burner #1 will keep running
- At SP1 setting (700 F), Burner #1 will shut off.

Primary Menu Omega Control Module

Press Enter After Making Any Change

Menu Item	Factory Setting
Out 1	0n0f
SP1d	-10
Out 2	0n0f
SP2d	-20
ArUP	Off
ArtE	Off
Fint	0
Fbnd	0
Frte	0.00
PEA	Highest recorded temp
VAL	Lowest recorded temp
Pct0	Off
InPC	0
Filt	2
LPbr	Off

Secondary Menu Omega Control Module

Press Enter After Making Any Change

Menu Item	Factory Setting
SECr	4
InP	J-IC
Unit	F
dPt	0
InPt	Off
SEnC	Off
SCAL	-100
SCAH	1600
SPL	-100
SPH	1600
SP10	OutA
SiSt	re
S1rE	0n0f
S1Pi	Off
S1iH	Off
S1LP	0 on
S2t	de
S2St	re
S2re	0n0f
S2Pi	Off
S2iH	Off
S2LP	0on
AL1	Off

Section Two
Firing My Burner for the First Time

Refer to Page 26 and 27 of the Commercial installation manual found in the Library Section of our website: http://www.fornobravo.com/PDF/commercial_install.pdf

There are several causes for a burner not to fire after initial setup. Below is a list in order of common things to check.

NOTE: If you attempted to fire three consecutive times unsuccessfully, you unit will perform a safety lock out. To reset the system follow the steps outlined in Section Three.

Common Causes for Flame Fail at Start Up:

Ceramic Probes for Flame Sensor and Ignition are not properly aligned

Symptom: I hear the spark attempt when turning to HEAT, but the Burner assembly doesn't fire. Unit goes into Flame Fail.

Check that electrodes are mounted correctly. One electrode looks like a right angle (flame sensor), the other looks like a hook (ignitor). Both are installed the primary burner for ignition. See Picture below: The burner on your left is burner #1.

Flame Sensor and Ignitor Probe ignition cables are reversed.

Symptom: I do not hear any spark attempt when turning the oven to HEAT. Unit does into Flame Fail.

Verify Ignition cables are properly connected. The ceramic probe attached to burner #1 (no tape) should be the plain red wire. Ceramic probe attached to burner #2 (marked with tape) should be the wire marked with black masking tape.

NOTE: Probe #1 is a Flame Sensor, if it doesn't sense flame after a signal to ignite, the control box will send a safety lock out signal. To reset the unit, refer to Section 3.

Ignition Wires are loose or not installed properly in the Ignition control box.

Symptom: The controller is on and lighting up, but I am not hearing any spark from the oven.

Check the wires connecting the ignition electrodes and the ignition module. These can come loose during installation and may need to be reset. Check the connector between the controller and the burner assembly. Make sure it is completely plugged in. **Refer Honeywell Ignition Manual troubleshooting chart (Figure 12) for more assistance.**

Insufficient Gas Pressure

Symptom: I hear the ignition attempt, but the unit goes into immediate Flame Fail.

NOTE: Always check for leaks prior to attempting to fire the oven after installation or routine maintenance.

Option 1:
Check input pressure lines and refer Page 19 of the Commercial Installation guide for proper gas pressure. http://www.fornobravo.com/PDF/commercial_install.pdf. Ensure you purged the line before attempting startup.

Option 2:
Check settings on the Air Intake Valve of Burner #1 and Burner #2. You may have to adjust the valves to allow proper mix. The small thumb wheels are held in place by a set screw. Loosen the set screw and adjust the air intake. The "higher" vertically the less gas, the "lower" vertically the more gas.

Section Three
Electronic Control Reset

When the burner controller is turned on and off three times in succession, it goes into a state called "lock-out". This is a designed safety feature. To get the controller out of "lock-out", you must do the following procedure.

1. Lower the SP1 setting to room temperature. Leave SP2 at -10 degrees.
2. Allow the controller to sit and reset itself for five minutes.
3. Raise the SP1 setting to your desired temperature and call for flame.

Section Four
Common Flame Issues

Issue
The flame coming out of the burner is weak, and causing a lot of smoke.

Solution
The condition is called “lazy flame”. This requires an adjustment of the air intake at the bottom of the burner. The small thumb wheels are held in place by a set screw. Loosen the set screw and adjust the air intake. The “higher” vertically the less gas, the “lower” vertically the more gas.

Issue
My flame keeps flickering.

Solution
Ensure that there is sufficient air intake under the oven. Gas burners get their make up air from the bottom. **Refer Honeywell Dual Gas control Manual troubleshooting guide for assistance.**

Section Five
Thermocouple / Sensor Issues

Issue
My display is reading **OFL** or **UFL,** and won't ignite.

Solution
This means too much data, or no data is coming from the sensor. The thermocouple is either shorted or open. Check the thermocouple wire to see if there is a break or short. Replace is necessary. Some times, on oven kits, during installation, the thermocouple is put too far in, and the insulation on the wires melts. Ensure the strain relief of the sensor is in the blanket insulation, not against the dome.

Other related readings:

- Control unit is reading 1609 - OFL and wont' fire. The Thermocouple line to the controller is open. Check all connections and terminals. If the problem persists, you may have to replace your Thermocouple.
- My control unit is reading -109 UFL. The Thermocouple line is shorted. Check all connections and terminals. If the problem persists, you may have to replace your Thermocouple.

Issue: My control panel is reading significantly higher than the actual oven temperature.

Solution
Mostly likely, the thermocouple has resistance between the sensor and the Omega control module. Check each of your connections and ensure everything is properly connected and the connections are solid. If this doesn't correct the problem, you may have to replace your Thermocouple.

Issue: My unit is reading temperature inconsistently. The temperature fluctuates causing the unit to turn on and off rapidly.

Solution
It is possible that your Thermocouple signal to the Omega module is being interfered with. Check your installation to see if the Thermocouple wire is running through the same opening into the control module as the 6 Pin White Carol Cable. If it is, we suggest you re-route the Thermocouple wire separate from the Carol cable and away from the transformer inside the box.

Section Six
Preventive Maintenance

TO BE ADDED

Section Seven
General Questions

Question
How much gas does the burner use?

Answer
The burner uses a minimum of 1.7 cubic meters of gas per hour (Nm3/h), and a maximum of 5.3 cubic meters per hour (Nm3/h). This is assuming a gas pressure of at least 10 mbar (millibar atmospheric pressure)

Question
I don't have a pre-made stand, and I need to mount the burner. How far in should the gas jets protrude?

Answer
A minimum of level with the cooking surface, a maximum of six inches above the cooking surface.

Question
Do I need a special connector to connect gas to my burner?

Answer
No. The burner uses a standard connector for natural gas, or propane, depending on what is ordered.

Question
My control panel is reading significantly higher than the actual oven temperature.

Answer
Mostly likely, the thermocouple has resistance between the sensor and the Omega control module. Check each of your connections and ensure everything is properly connected and the connections are solid. If this doesn't correct the problem, you may have to replace your Thermocouple.