

Fisher & Paykel

Wall Oven
OB60SL9
OB60SL11

Diagnostic Manual

Oven Functions

High Spec Multi

The model ID is set to number 1

Cook Function	Stage	Watts	Elements Used	Misc Used
Bake	Bake Pre heat + Overshoot Cook		upper inner, lower inner upper outer, lower inner	cooling fan, lights, oven fan cooling fan, lights
Vent Bake	Pre heat + Overshoot Cook	3657 2839	upper Inner, lower inner upper outer, lower inner	cooling fan, Lights, oven fan cooling fan, lights, upper & lower vent
		upper inner, lower inner upper outer, lower inner	cooling fan, lights, oven fan cooling fan, lights, oven fan, upper vent	
Grill	Cook	3339	upper inner, upper outer	cooling fan, lights, upper & lower vent
Fan Grill	cook	3369	upper inner, upper outer	cooling fan, lights, oven fan, upper & lower vent
Fan Forced	Pre Heat + Overshoot Cook	3657 2663	upper inner, lower inner fan element	cooling fan, lights, oven fan cooling fan, lights, oven fan, upper vent
Pastry Bake	Pre Heat + Overshoot Cook< 210 deg C Cook >210 deg C	3657 1669 2869	upper inner, lower inner lower inner upper outer, lower inner	cooling fan, lights, oven fan cooling fan, lights, oven fan, upper & lower vent cooling fan, lights, oven fan, upper & lower vent
		cooling fan, lights, oven fan, upper & lower vent cooling fan, lights		
Warm	Cook	2839	upper outer, lower inner	cooling fan, lights, upper & lower vent

High Spec PyroThe model ID is set to number 2

Cook Function	Stage	Watts	Elements Used	Misc Used
Bake	Pre heat + Overshoot Cook	3687 2857	upper inner, lower inner upper outer, lower inner	cooling fan, lights, oven fan cooling fan, lights
Vent Bake	Pre heat + Overshoot Cook	3687 2869	upper Inner, lower inner upper outer, lower inner	cooling fan, Lights, oven fan cooling fan, lights, upper & lower vent
Fan Bake	Pre Heat + Overshoot Cook	3687 2893	upper inner, lower inner upper outer, lower inner	cooling fan, lights, oven fan cooling fan, lights, oven fan, upper vent
Grill	Cook	3369	upper inner, upper outer	cooling fan, lights, upper & lower vent
Fan Grill	cook	3399	upper inner, upper outer	cooling fan, lights, oven fan, upper & lower vent
Fan Forced	Pre Heat + Overshoot Cook	3687 2693	upper inner, lower inner fan element	cooling fan, lights, oven fan cooling fan, lights, oven fan, upper vent
Pastry Bake	Pre Heat + Overshoot Cook < 210 deg C Cook >210 deg C	3687 1699 2899	upper inner, lower inner lower inner upper outer, lower inner	cooling fan, lights, oven fan cooling fan, lights, oven fan, upper & lower vent cooling fan, lights, oven fan, upper & lower vent
Roast	20 min Fan Grill Cook	3399 2857	upper inner, upper outer upper outer, lower inner	cooling fan, lights, oven fan, upper & lower vent cooling fan, lights
Classic Bake	Pre Heat + Overshoot Cook < 210 deg C Cook > 210 deg C	3687 1669 2869	upper inner, lower inner lower inner upper outer, lower inner	cooling fan, lights, oven fan cooling fans, lights, upper & lower vent cooling fan, lights, upper & lower vent
Warm	Cook	2869	upper outer, lower inner	cooling fan, lights, upper & lower vent
Self Clean	< 250 deg C > 250 deg C	3567 3573	upper inner, lower inner upper inner, lower inner	cooling fan cooling fan high speed, upper vent

Mid Spec Model

The mid spec models use a mechanical function switch and thermostat.

2.1 Entering the Technician Mode

NOTE: The OB60SL9 &11 ovens use an OB2 Electronic Platform controller, which is a universal controller used in other OB models, ensure correct model ID is selected for the model you are working on.

To enter the mode:

- 1. Ensure all oven modes and temperature displays are set to OFF.
- 2. Ensure no cooking auto functions are set.
- 3. Enter the Technician Mode by pressing and holding the "Cancel Button" (X) on the clock for approx 2 seconds, then remove finger.
- 4. Then press the "OK Button" ($\sqrt{ }$) once on the clock.
- 5. Push & hold the < > buttons together for 2 seconds.

The display will then show the word "wait" as it does a self check between the user interface (UI) and power board (PB).



"wait" is shown like the photo example

- 6. To scroll through the five sub menu's use the < > buttons.
- 7. To enter a sub menu press the "OK" ($\sqrt{\ }$) button.
- 8. To exit a sub menu press the (X) button.

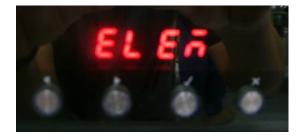
2.2 Technician Mode Navigation

Once in Technician Mode there are 5 possible menus:

Menu 1 - Elements

This is the functional menu, which allows individual components to be test run.

- To scroll to each component use the <> Buttons
- To turn the component on and off use the "OK Button" $(\sqrt{\ })$



Function chart on following page.

Symbol	Component	Wattage (W)
UI	Upper Inner Element	2000
Uo	Upper Outer Element	1200
LI	Lower Inner Element	1500
Lo	Lower Outer Element	Not used on OB2
FE	Fan Element	2500
CF	Cavity Fan	30
LF	Low Speed Cooling Fan	20 (non pyro) 60 + resistor (pyro)
HF	High Speed Cooling Fan	60
ro	Rotisserie motor	5
Lt	Lights	100
UV	Upper Vent actuator	6
LV	lower vent actuator	6
LC	Lock Motor 1. Door Switch must be in the closed position 2. Short delay and LCD will display "ON" 3. Will show "of" when turned off	

Menu 2 - Model ID

This menu will show the model ID of the product, to enter press the "OK Button" ($\sqrt{\ }$) A number will be displayed, and will scroll in the display, ensure the correct region is set as there are different cooking profiles for different models.

- 0 No Model (New Power Board, New Clock Board)
- 1 OB2 Multi 16 Ampere
- 2 OB2 Pyro 16 Ampere



Note: If changing a power board or clock module, always check that the correct model ID is set.

Menu 3 - Software Version

This menu will show the software version of the electronics, it will scroll through the User Interface (UI) and power board (Pb) software and will advise the following:



ww.xx.yy.zz

The individual identifiers describe:

ww:

Safety version. Increments on approved changes to the safety critical software section. A change will result in a new checksum for the safety critical program code.

xx:

Major functional software version. Increments on production releases that added major functionality such as support for new products.

уу:

Minor functional software version. Increments on all other production releases that or not classified as major.

zz:

Development version. Increments on internal releases.

Menu 4 - Demo Mode

To enter this sub menu press the "OK" ($\sqrt{\ }$) button.

If set to on, the oven heating elements and the cooling fans will stay off, but the lights and display function will operate, which is ideal in a retail shop.

This setting survives the power being switched off, and has to be manually switched off.



Menu 5 - Life Test Mode

This menu is not used in the field, it is for factory use only.



All errors of the Power Board and the Clock Board are displayed using the seven segment digits on the Clock Board.

There are two types of fault codes,

A – Alert codes: These are customer errors which can be solved by generally letting the product cool down, or powering it off then on at the wall. These codes will show the letter A, followed by a number.

F – Failure Faults: These are generally caused by component failure, and will either be in the User Interface (UI) or the Power Board (PB).



Example: (Fault)	F 2 01	F means fault, which typically requires a technician.
		1 means that the error occurred on the Clock Board.2 means the error occurred on the Power Board.
		xx is the type of the error. In this case "01" means Initialisation error. No Clock Board found
Example: (Alert)	A1	A indicates an alert, followed by a number, which tells the user the kind of alert and what to do next ("1" means over-temperature).

3.1 User Alert Codes

Alert Code	Possible Cause	What to Check
A1	The oven has overheated:	 Power Board, Clock Board or cavity over-temperature. Let the oven cool down, the alert should clear itself.
	The temperature around the	
	power board is too hot.	If this alert happens frequently, check the cooling fan(s) for proper operation. Make sure the oven is not used in a hot
	The temperature around the	environment and that it can emit its heat properly.
	clock board is too hot	Replace the cavity temperature sensor.
		Replace the Power Board.
		Replace the Clock Board.

Alert Code	Possible Cause	What to Check
A2	Door lock error: the door cannot be locked after a self clean cycle has been started.	 Door can not be locked Make sure the door and the lock system are properly aligned, so the lock can engage into the door. Check/replace thermal limiter(s) which may have cut power to the lock motor. Check whether the lock motor turns. Check the lock/unlock switches + connector to the power board. Check the lock/unlock relay on the power board. Replace the lock system. Replace the power board.
A3	Door lock error: the door cannot be unlocked after a self clean cycle has finished.	 Door can not be unlocked Refer to the procedure above (Door cannot be locked "A2") You might need to press the door while unlocking, so the door lock can disengage.

3.2 Failure Alerts

F1 - Clock Board Faults

	Board Fau	
Туре	Error	Description & Possible Solution
F1	01	Initialisation error. No Power Board found.
		Check connection to Power Board.
		Replace Power Board.
	02	Unknown Model ID. The Clock Board does not support the Model ID set on the Power Board.
		Replace the Clock Board, as that will have a newer version of software in it.
		Once the oven is working again, check via Technician Mode that the Model ID is correctly set.
	03	General software error.
		Try powering the oven off and on. If the problem persists, replace the Clock Board.
		, the second sec
	04	Communication error. The Power Board does not respond in time or at all.
		Check connection to Power Board.
		If the problem persists, replace Power Board.
	16	Crystal Oscillator fault. This can occur during baking with a lot of condensation.
	18	Let the oven cool down and dry out. Then power the oven off and on.
		If the problem persists, replace the Clock Board.
	4.4	
	11	Critical software/hardware fault.
	12	Try powering the oven off and on. If the problem persists, replace the Clock Board.
	13 14	
	15	
	17	
	19	
	20	
	21	

F2 - Power Board Faults

Туре	Error	Description & Possible Solution
F2	01	Initialisation error. No Clock Board found.Check connection to Clock Board.Replace Clock Board.
	02	 Unknown Model ID. The Power Board does not support the Model ID that is tried to be set through Technician Mode or restored by the old Clock Board (when Power Board is being replaced). Make sure you are setting the correct Model ID. Or try another Power Board spare that has a newer version of software in it. Once the oven is working again, check via Technician Mode that the Model ID is correctly set.
	03	General software error. Try powering the oven off and on. If the problem persists, replace the Power Board.
	04	Communication error. The Clock Board does not respond in time or at all. Check connection to Clock Board. If the problem persists, replace Clock Board.
	07	 Self Clean Door fault. The door was opened during a self clean cycle. Make sure the user did not try opening the door during self clean. Check the magnet in the door frame (if applicable). Check the door switch and its connection to the Power Board. Replace the door switch. Replace the Power Board.
	13 14	 Cavity Temperature Sensor found to be open/short circuit. Check the harness of the cavity sensor to the power board + connector. Replace the cavity sensor (plug into board before replacing). Replace the Power Board.
	16	 Cavity not heating up (sensor sees no change in temperature). Use Bake function from cold to evaluate this fault; it takes at least 10 minutes to fault out when no change in temperature is seen. Check with customer how/when the fault occurred. Certain load configurations could trip this fault. Check/replace Thermal Limiter(s) which may have cut power to the heating elements. Check each heating element via technician mode to ensure they are operating. Replace the Power Board. Replace the cavity sensor.
	17	 Door lock is not in its unlocked position. Check/replace Thermal Limiter(s) which may have cut power to the lock motor. Check whether the lock motor turns. Check the lock/unlock switches + connector to the Power Board. Check the lock/unlock relay on the Power Board. Replace the lock system. Replace the Power Board.

Type	Error	Description & Possible Solution
F2	20 22	 Crystal Oscillator fault. This can occur during baking with a lot of condensation. Let the oven cool down and dry out. Then power the oven off and on. If the problem persists, replace the Power Board.
	11 12 15 18 19 21 23 24 25	Critical software/hardware fault. Try powering the oven off and on. If the problem persists, replace the Power Board.

3.3 SYMPTOM: Oven under Cooking

POSSIBLE CAUSES:

- Incorrect oven use
- Incorrect temperature scale used
- Faulty temperature sensor
- Faulty oven element
- Faulty oven cavity fan
- Blown thermal limiter
- Faulty power module
- Faulty Door switch (SL7 & SL11 models only)

DIAGNOSIS:

- Check that the oven is being operated correctly.
- Ensure the oven door closes and seals correctly.
- Ensure the correct temperature scale has been set. (°F or °C).
- Check that the correct oven mode has been selected.
- Check temperature sensor
- Check for tripped thermal limiters.
- Check oven elements in diagnostics
- Check oven cavity fans in diagnostics
- Replace the power module if no other faulty components can be found
- Check door switch

3.4 SYMPTOM: Baking Burns on the Top

POSSIBLE CAUSES:

- Incorrect oven use
- Incorrect temperature scale used
- Faulty temperature sensor
- Faulty oven element
- Faulty oven cavity fan
- Faulty power module

DIAGNOSIS:

- Check that the oven is being operated correctly.
- Ensure the correct temperature scale has been set. (°F or °C).
- Check that the correct oven mode has been selected.
- Check temperature sensor
- Check oven elements in diagnostics
- Check oven cavity fan in diagnostics
- Replace the power module if no other faulty components can be found.

3.5 SYMPTOM: Baking Burns on the Bottom

POSSIBLE CAUSES:

- Incorrect oven use
- Incorrect temperature scale used
- Faulty temperature sensor
- Faulty oven element
- Faulty oven cavity fan
- Faulty power module

DIAGNOSIS:

- Check that the oven is being operated correctly
- Ensure the correct temperature scale has been set (°F or °C)
- Check that the correct oven mode has been selected.
- Check temperature sensor
- Check oven element in diagnostics
- Replace the power module if no other faulty components can be found.

3.6 SYMPTOM: Oven seems to be functioning normally but does not heat

POSSIBLE CAUSES:

- Faulty oven door switch or door not closed (SL9 & SL11 models only)
- Tripped thermal limiter
- Faulty temperature sensor
- Faulty oven element
- Faulty power module

DIAGNOSIS:

- Check to see if the door switch is operating correctly
- Check for tripped thermal limiters.
- Check temperature sensor
- Check oven element in diagnostics
- Replace the power module if no other component faults can be found.

3.7 SYMPTOM: Oven heats slowly or fails to reach preset temperature

POSSIBLE CAUSES:

- Incorrect oven use
- Faulty door switch (pyro models only)
- Low supply voltage
- Faulty temperature sensor
- Faulty oven element / fan
- Faulty power module

DIAGNOSIS:

- Ensure the oven door closes and seals correctly.
- Check door switch
- Check temperature sensor
- Check oven element in diagnostics
- Replace the power module if no other component faults can be found.

3.8 SYMPTOM: No clock display but oven works

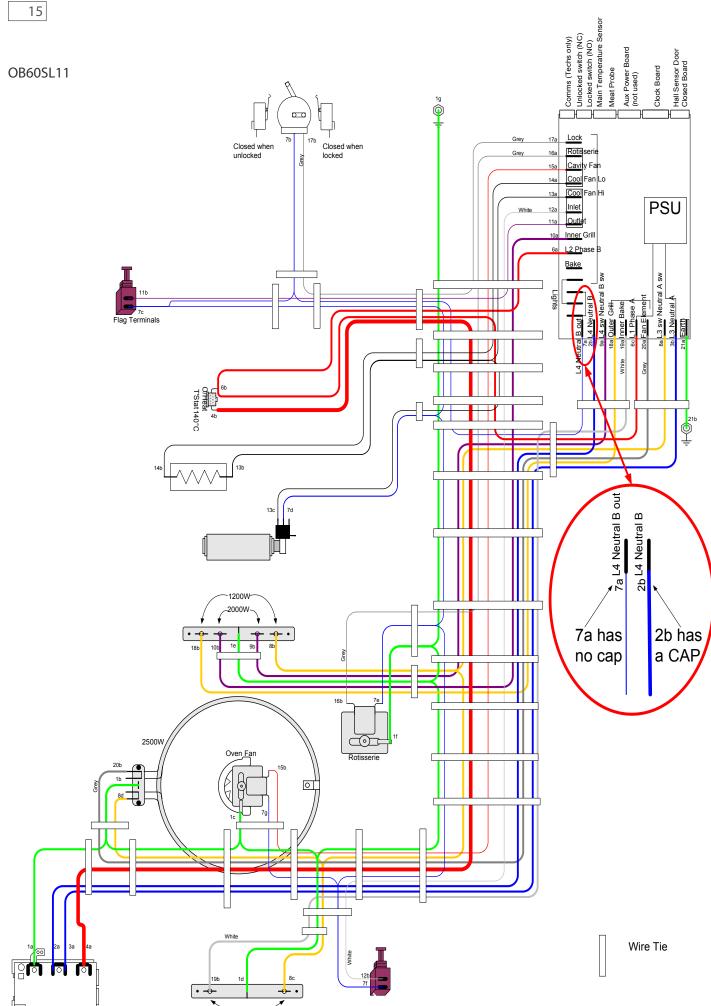
POSSIBLE CAUSES:

• Oven is set to "Display OFF" mode.

DIAGNOSIS:

• Hold "Cancel" button (X) down for more then 2 seconds to clear.

Wire Tie





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