

SBS V1 & V2

PRODUCTION TEST

Everytime the refrigerator is energized, the following production test is run by the electronic control.

- Defrost heater run for 6 sec
- All components are OFF for 1 sec
- Evaporator fan run for 3 sec
- All components are OFF for 1 sec
- Baffle heater run for 3 sec
- All components are OFF for 1 sec
- Baffle open & close (approximately 20sec)
- Compressor run 6 sec

If it is an initial start, compressor continue to run according to default settings.

If it is an electrical interruption, compressor stops and again run after 6 min delay according to previous settings (if refrigerator needs cooling).

SERVICE TEST

During the first 30 sec of power interruption or initial power up, the service test may be initiated by pressing "Quick Cool" button for *3 sec*.

For *0,5sec*, all segments and the buzzer are ON.

Afterwards all segments and the buzzer are OFF for *0.5sec*.

Above loop continuous until any button is pressed.

When any button is pressed, freezer set point digits show the version number, in decimal notation (such as 01, ...05, etc) for *3 sec*. At this time, fridge segment shows revision number in decimal notation (such as 1,...5, etc). Version number shows important modification in Software, revision number shows any small modifications.

Then the sensor temperatures displayed according to the below sequence:

- Freezer temperature displayed on freezer display, and fridge display shows "r" for *2 sec*.
- Fridge temperature displayed on freezer display, and fridge display shows "F" for *2 sec*.
- Evaporator temperature displayed on freezer display, and fridge display shows "d" for *2 sec*.

Above sensor temperature displaying continues until any button is pressed.

When any button is pressed, then the freezer display shows "--" and the fridge display shows "--".

By pressing the buttons, the loads can be activated/deactivated individually or in combination as follows:

Button	Freezer/Fridge Bar-graph Segment	Output	Time limit	Display Code
Freezer Set	Freezer #1 on	Compressor	No limit	CO
Freezer Set	Freezer #1 off	Compressor	No	--

(2. press)			limit	
Quick Freeze	Freezer #2 on	Defrost Heater on	No limit	HE
Quick Freeze (2. press)	Freezer #2 on	Defrost Heater off	No limit	--
Fridge Set	Freezer #4 on	Motorized baffle open	No limit	BA
--	Freezer #4 on and <u>Fridge #4 on</u>	When baffle is fully open, Baffle heater is On	No limit	BA
Fridge Set (2. press)	Freezer #4 off and <u>Fridge #4 off</u>	Motorized baffle close, Baffle heater is Off	No limit	--
Quick Cool	Freezer #3 on	Fan On	No limit	FA
Quick Cool (2. press)	Freezer #3 off	Fan Off	No limit	FA

In case of multiple active outputs at the same time, the output codes will be shown in series in *1sec* steps.

The freezer bar-graph segments indicate the individually selected loads.

The Service Test is terminated by a power interruption.

For safety reasons, the Service Test is automatically terminated after *30min*.

After termination of service test, the control restarts just like after the initial power-up and default settings are used.

ERROR CODES

Error codes is displayed at freezer display and while there is an error code “!” icon is blink on the display. Actual freezer display and error code/codes are shown in sequence.

E0 (Freezer sensor failure):

- Entry: If measured sensor value is open circuit or short circuit
- Behaviour during error: Compressor and freezer fan run 30 min ON , 20 min OFF respectively. Freezer bar-graph display will be on or off.
- Exit: If the sensor value is correct (not open or short) error is omitted.

E1 (Freezer defrost sensor failure):

- Entry: If measured sensor value is open circuit or short circuit
- Behaviour during error: Defrost heater will be switched on for 25min. during normal defrost.
- Exit: If the sensor value is correct (not open or short) error is omitted.

E3 (Fridge sensor failure):

- Entry: If measured sensor value is open circuit or short circuit
- Behaviour during error: Baffle should be opened for 30min. and closed for 20 min. Fridge bar-graph display will be on or off.
- Exit: If the sensor value is correct (not open or short) error is omitted.

E4 (Defrost heater failure):

- Entry: If defrost time is equal to the maximum defrost time of 60min. for 4 consecutive defrosts this error is shown.
- Behaviour during error: Control runs defrost heater normally.
- Exit: When a defrost finishes shorter than maximum time of 60min error is omitted.

When the failure is corrected the error code will disappear on the display and control will run according to normal related algorithm.

After a power interruption, error codes should be remembered.

After an initial power-up, error codes, except heater error, should not be remembered. (Heater error should be remembered)

Error codes are cleared after a self-test.