

E5 Service Mode



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E5 Control Unit



- 1 : On/Off key
- 2 : Programme Selection P
- 3 : F1 & F2 (Function Key 1/2)
- 4 : F1 Function Led
- 5 : F2 Function Led
- 6 : Programme Number
- 7 : Salt Indicator
- 8 : Rinse Aid Indicator
- 9 : Auto Door Opening Indicator

- 10 : Tablet Detergent Indicator
- 11 : Play Icon
- 12 : End of Programme Icon
- 13 : Remaining Time / Prog. Duration
- 14 : F3 Function Led
- 15 : Time Delay Icon
- 16 : F4 Function Led
- 17 : F3 & F4 (Function Key 3/4)
- 18 : Time Delay Key

E5 Key Combinations



2 & 18 : Settings Menu (Available in ON mode)
1 & 2: Service Menu (Available in OFF mode)

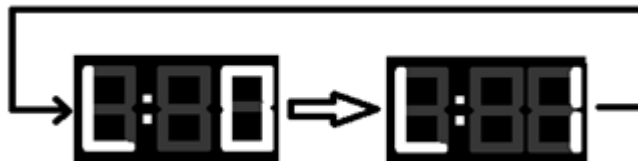
Settings Menu



As described in user manual this menu is designed for customer preferences settings:

- When the dishwasher is in program selection mode; Press **[P]** and **[Delay]** keys about 3sec to enter the settings menu.
- Press **[P]** key to navigate in service menu and display current settings.
- Press **[Delay]** key to change settings
- Press **[On/Off]** key to exit from the menu.

Settings Menu - Internal Light (if available)



Will be available in settings menu if the dishwasher has inner light feature;

L:0 internal light always off.

L:1 internal light will be on for 2min. after opening the door.

Settings Menu - Microfilter Cleaning(if available)

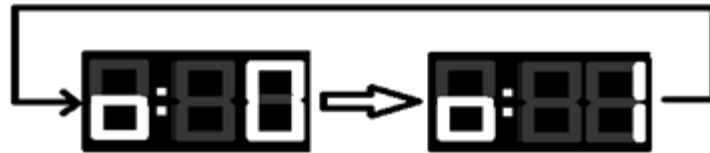


Will be available in settings menu if the dishwasher has filter cleaning feature;

F:0 filter cleaning function will not work.

F:1 filter will get cleaned after each washing programme automatically to have a better washing performance.

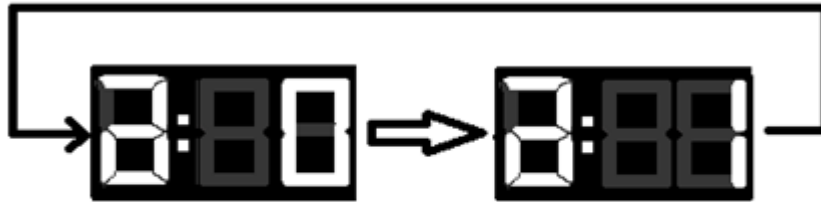
Settings Menu - Auto Door Opening (if available)



Will be available in settings menu if the dishwasher has auto door opening feature;

- o:0 auto door opening feature will be closed.
- o:1 the door will be opened at the end of each program to have a better drying performance.

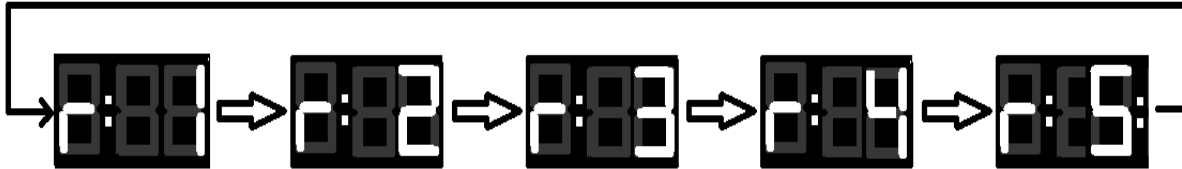
Settings Menu - Auto Tablet Detection (if available)



Will be available in settings menu if the dishwasher has auto tablet detection feature;

- a:0 auto tablet detection feature is disabled
- a:1 auto tablet feature is enabled to make automatic tablet detergent detection during the washing cycle.

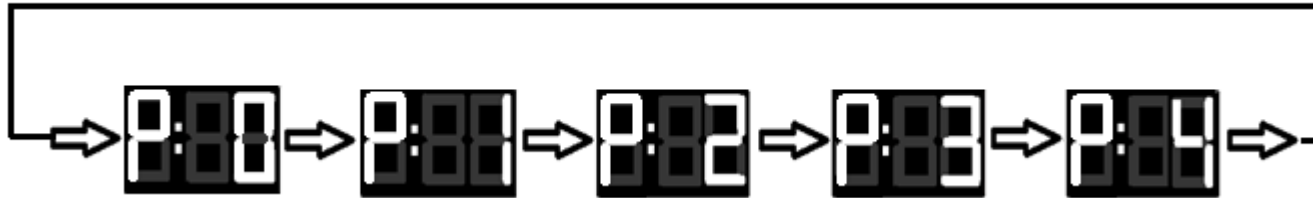
Settings Menu - Regeneration Level



As discribed in user manual regeneration level need to be set according to the water hardness.

- Press [Delay] key to change regeneration setting
- Press [On/Off] key to exit from the menu.

Settings Menu - Rinse Aid Level



As discribed in user manual rinse aid level need to be set according to the customer needs.

- Press [Delay] key to change rinse aid setting
- Press [On/Off] key to exit from the menu.

P:0 → Rinse Aid dosing is disabled in washing programs

P:1 → 1 dose Rinse Aid will be used

P:2 → 2 dose Rinse Aid will be used

P:3 → 3 dose Rinse Aid will be used

P:4 → 4 dose Rinse Aid will be used

SERVICE MENU



This menu is designed for service professional's which include diagnostic programs:

- When the dishwasher is in OFF mode; Press [P] and [On/Off] keys about 3sec to enter the settings menu.
- Press [P] key to navigate in service menu
- Press [Delay] key to start selected programme
- Press [On/Off] key to exit from the menu.

SERVICE MODE- Eeprom RESET



Eeprom Reset programme is used to set the dishwasher to the factory defaults;

- Press [Delay] key to reset.
- In 1 sec Reset will be done and end of program icon will be displayed.

SERVICE MODE - SFT



Service Functional Test is the diagnostics tool used by service professionals;

- Press [Delay] key to start SFT programme.
- Previous errors will be deleted before the program beginning.
- During the Service Functional Test (SFT) you need to press [Delay] key to continue the test when it stops and waits for the internal controls.
- End of program will blink at the end of the test.

ERROR CODES



Overflow



No Water



Heater Fault



Turbidity Fault



Diverter Valve Pos. Fault



NTC fault



Water Inlet Valve Fault



BLDC Motor DryRun

Errors diagnosed during the dishwasher usage will be displayed on screen;

- [E:01] and [E:02] will be displayed also in normal use.
- Other error codes will be displayed only in service mode.

TROUBLESHOOTING- General

E5 Dishwashers are electronically controlled and some faulty conditions can be detected by the electronics. These errors are detected not only in the functional test program but also during the washing cycles. The previously detected errors are kept in memory and shown in display.

When the test programs are started, error data in memory will be cleared which enables to understand if the same fault occurs during the functional test again. At the end of the test diagnosed errors date will also be cleared.

TROUBLESHOOTING- OverFlow [Er:1]

If the control system senses an overflow signal, this error will occur.
Control unit drains the water inside and checks the signal;

- If there is no overflow signal, dishwasher will continue to work normally.
- If the overflow signal remains, the system stops responding to any user input except the ON/OFF button and waits for the service.

Possible reasons:

- Broken components or torn hoses
- Malfunction of drain pump
- Malfunction of flowmeter
- Malfunction of water inlet valve
- Cable harness errors
- Faulty electronics

TROUBLESHOOTING- No Water[Er:2]

Incoming water to the machine is monitored via a water counter (flow meter) system. During the “Water Inlet” step if no pulses could be sensed by the electronics, No Water condition occurs.

At this condition the dishwasher will wait **until water signal is detected**. If necessary water signal is detected the machine will continue its normal operation.

Possible reasons:

- a. Malfunction of water inlet valve
- b. No water
- c. Insufficient water pressure
- d. Cable harness errors
- e. Faulty electronics

TROUBLESHOOTING- Heater Fault[Er:3]

The water temperature in the machine is measured by an NTC (negative temperature coefficient). At heating steps, if the temperature rise is less than 1 °C within 3 minutes heating fault occurs.

When the fault detected software skips the heating step and continues the program with the next step.

Possible reasons:

- a. Malfunction of heater
- b. Malfunction of NTC (constant NTC resistance)
- c. Cable harness errors
- e. Faulty electronics

Note: During the first 3 minutes of a heating step the water temperature is not controlled. The control system waits so that the temperature inside the machine reaches balance.

TROUBLESHOOTING- Turbidity Fault [Er:4]

Turbidity sensor is the component that measures the amount of dirt in the water. The machine uses this data for the steps of Auto Program (if applicable). If the proper data from the turbidity sensor cannot be received, Turbidity Sensor Error occurs.

When the error occurs, the software continues the program as heavy dirt level.

Possible reasons:

- a. Malfunction of Turbidity Sensor
- b. Cable harness errors
- c. Faulty electronics

TROUBLESHOOTING

Diverter Valve Pos. Fault [Er:5]

Diverter Valve is the component that diverts the water flow between the upper and lower trays. Position of the valve is checked by the main board. Diverter Valve Position Error occurs if the proper position signal could not be received from the valve.

When the error occurs, the electronics drives the valve until proper position signal is achieved.

Possible reasons:

- a. Malfunction of diverter way valve
- b. Cable harness errors
- c. Faulty electronics

TROUBLESHOOTING- NTC Fault [Er:6]

At the Heating step, if NTC resistance is measured beyond the specified resistance values or if the NTC resistance is measured as open/short circuit NTC fault occurs.

When the fault is detected software skips the heating step and continues the program with the next step.

Possible reasons:

- a. Malfunction of NTC
- b. Cable harness errors
- c. Faulty electronics

TROUBLESHOOTING- Water Inlet Valve Fault [Er:7]

Main board monitors water counter pulses at every step of the washing program. If pulses are received from the counter at any step other than Water-Inlet; Water Inlet Error occurs.

When the fault is detected software drains the water inside the dishwasher.

Possible reasons:

- a. Malfunction of water inlet valve (stuck as open)
- b. Faulty electronics

TROUBLESHOOTING- BLDC DryRun Fault [Er:13]

BLDC motor checks the amount of water. If the flow rate decreases BLDC motor DryRun Error occurs.

Possible reasons:

- a. Malfunction of water inlet valve (less water in dishwasher)
- b. Dirty filter or spray arm
- c. Faulty Motor-electronics connection