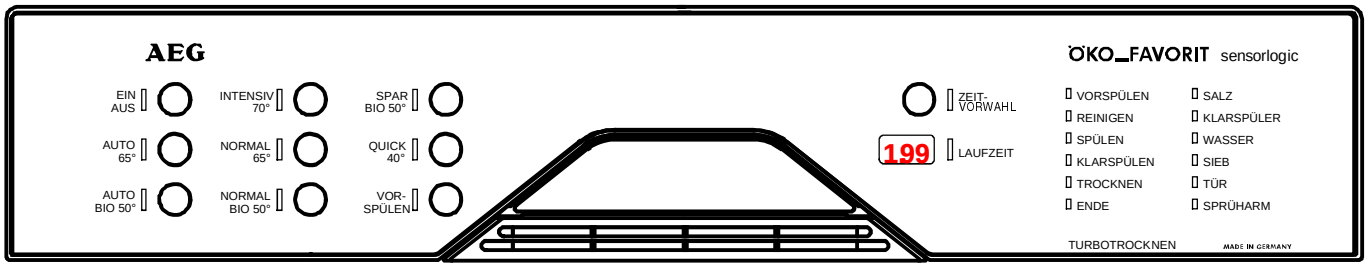
Electrolux
Technical Support Europe

SERVICE MANUAL

DISHWASHER



Dishwasher

Fully-Integrated, Integrated, Substructure, Upright Dishwashers with Flow-Type Heaters and Easytronic Plus

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Dishwasher

Fully-Integrated, Integrated, Substructure, Upright Dishwashers with Flow-Type Heaters and Easytronic Plus

Specifications

This service manual applies to the electronic control Easytronic Plus with all technial equipment that is currently available.

For example, for the Electrolux ASF 2688-w model.

For models without rotary slide, turbidity sensor, upper/cover spray arm or spray arm blocking detection, the information concerning the service is valid as well.

For example, for the Electrolux ASF 2645-w model.

The previous electronic control Easytronic has been updated, so that the information concerning the service is valid in this connection, too.

Information on repair and technical data conform to those of the dishwasher series 1995.

These dishwashers are described in the Service Manual Easytronic, Publ.-No. 599 50 69 24.

Dishwasher

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Specifications

The structure of these fully electronic dishwashers of highest comfort class described in this manual is equivalent to that of series 1995. Pages 292 1372 01 - 27 of this Service Manual describes the series of 1995.

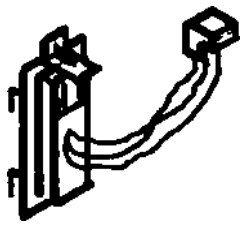
The electronic Easytronic plus control is a further development of the Easytronic and has additional functions. This Service Manual deals only with the Easytronic plus and the additional components.

Disassemble the Base Panel

Shift the base panel to the left and remove it.

Electronic Speed Identification for the Upper Sprayarm

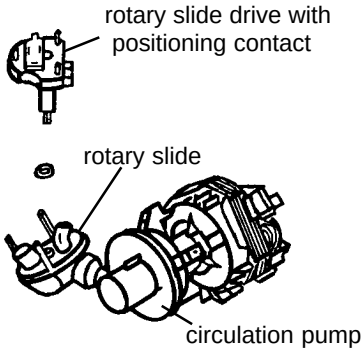
The speed identification consists of a magnetic sensor (Hall generator) which is actioned by a magnet in the upper sprayarm.



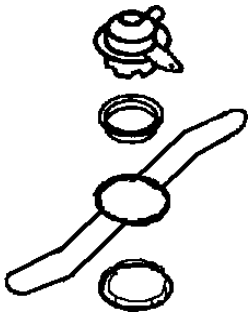
The recording of less than 4 revolutions causes the fault display “sprayarm blocked”.

Circulation Pump with Rotary Slide

The circulation pump is driven by a single-phase asynchronous motor with an auxiliary winding.
The auxiliary winding is connected by a 4mF capacitor. The rotational speed is controlled by a tachymetric generator. There are three speeds for washing.
1600 rpm, 2000 rpm, 2800 rpm, capacity 30 W.



At the pressure connecting piece of the circulation pump there is a rotary slide which guarantees the water supply to the upper spray-arm alternating with the lower sprayarm and the ceiling shower and/or the ceiling sprayarm. During the heating phase only the upper sprayarm is operating.

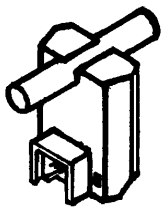


Ceiling Sprayarm

The new cutlery basket is placed at the upper dishwasher basket. The ceiling sprayarm sprays the water directly onto the cutlery basket and guarantees an excellent washing result with the cutlery placed in that basket.

Turbidity Sensor

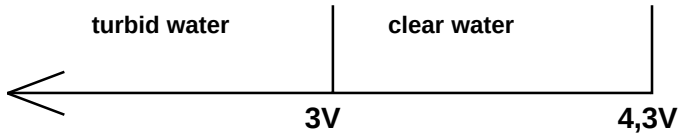
The turbidity sensor function is only activated in cycles “AUTO 65° and AUTO BIO 50°”.



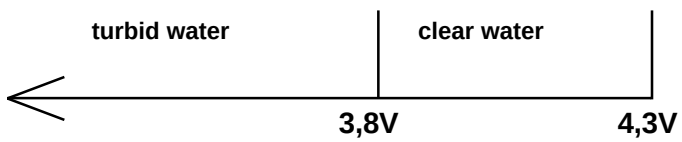
Function:

The input voltage with the turbidity sensor may be between 6 V and 11.4 V. (The measurements are described in detail in the chapter “Measuring Points at the Electronic Control (in the base)”). For a clear water the output voltage must always be 4.3 V. If that value differs due to soiling of the turbidity sensor after a longer operational period, the Easytronic plus recontrols the input voltage with the turbidity sensor automatically until the output voltage is 4.3 V. This happens during the final rinse cycle. If the 4.3 V is not achieved within 8 seconds, the fault “C5” is stored in the fault memory. If the output voltage falls below 3 V in the prewash cycle and below 3.8 V in the intermediate rinsing cycle, turbid water will be detected. With the service test routine the turbidity sensor will be calibrated to 3.5 V not with water but with air.
That corresponds to 4.3 V with water.

output voltage prewash:



output voltage intermediate



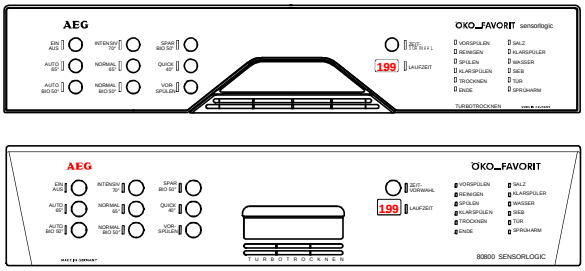
Dishwasher

Fully-Integrated, Integrated, Substructure, Upright Dishwashers with Flow-Type Heaters and Easytronic Plus

Specifications

Cycle Table

Appliance with 8 cycles, e.g. FAVORIT 82800 SENSORLOGIC
FAVORIT 80800 SENSORLOGIC



Auto 65 °	INTENSIVE 70 °	ECO 50 °
Auto 50 °	NORMAL 65 °	QUICK 40 °
	NORMAL / BIO 50 °	PREWASH

Appliance with 6 cycles, e.g. FAVORIT 60700 vi SENSORLOGIC

INTENSIVE 70 °	AUTO SPAR 50 °	QUICK 40 °
AUTO 65 °	ECO 50 °	PREWASH

“Superwash” or “Soaking” Function (Option)

Can be selected for which cycles?

- Using the separate option key, which is placed on the right side of the appliance (output side), it is possible to select in addition the “soaking” and “superwash” function respectively for following cycles..

  - o intensive 70°
  - o intensive 65°
  - o normal 65°

  For all other cycles this function is not possible.

How does this option affect the cycle run?

- **Description of Cycle Differences**

  - **o Essential changes in the prewashing**
    - hot prewash with temperature increase Temperature will be increased from 40°C to 55°C.
    - A two-times soaking phase of 5 minutes each will be inserted. Between these phases the circulation pump will shortly be actioned. During that time the soiling will be dissolved or soaked.
    - Additional prewash times of a total of 7 minutes will be inserted. In doing so the temperature of 55°C will be kept by a possible re-heating.
    - With selected option, the “prewash” cycle will be extended by approx. 18 - 20 minutes.

  - **o Essential changes in the washing**
    - Additional 6 minutes of washing with heating to a maximum of 55°C
    - Additional 20 minutes of washing at a controlled temperature of 70°C (resp. 65°)
    - With selected option, the “prewash” cycle will be extended by approx. 26 minutes.

  - o The option does not intervene the cycle run of final rinse and drying. With “normal 65°C” however, the 2nd intermediate rinsing already included in the intensive cycle will be inserted additionally.

- **How to add detergent?**

  - o It is possible to add detergent twice.
    - Quantity: 30 g each or 1 tablet for the start
    - Fill the detergent in the door for the hot “superwash” prewash
    - Fill it in the detergent dispenser for the “superwash” cycle

Cycle Functions

- **Start-Time Preselection (SZV)**

  - The start-time preselection can only be activated before the cycle starts with the switched-on appliance.
  - An activated start-time is confirmed by a red LED “SZV”.
  - It can be selected scrolling by each pushing the key: The time is indicated by a 2-digit 7-segment display (1 - 2 - ... - 19 - 0 - 1 - ...).
  - 6 seconds after last pushing the key the timer of the preselection time will be started, if an effective washing cycle has been selected.
  - The preselection time can be changed at any time during the whole start-time countdown.
  - 6 seconds after the time preselection has count down the selected washing cycle will start.
  - If no washing cycle was selected, the adjusted SZV (start-time preselection) value will stay and flash until an effective cycle has been selected. After a cycle has been selected additionally, the cycle LED, the PAA and the 7-segment display will still flash for 6 seconds (possible time for a change) and will light permanently afterwards. The start-time preselection is now activated. The PAA will go out until the cycle starts.
  - The start-time can be cancelled alone or along with the cycle.

- **Display of Remaining Time**

  - The remaining time indicates the expected running time of the selected cycle combination.
  - The display is indicated in minutes.
  - The display of the remaining cycle running time is indicated by a 7-segment display.
  - The display is 2 1/2-digit. This means a maximum of “199” minutes can be displayed. With times more than 199 minutes the time 199 is indicated until the cycle running time is below that figure. Only from that time the remaining time will be updated again automatically.
  - After switching on the appliance without having selected a washing cycle the 7-segment display and the running time LED will remain dark.
  - If a washing cycle has been selected, the LED “running time” gives a red light, the 7-segment display flashes and will light permanently from the cycle start.
  - The indicated times are to be taken from a table which is adjusted to the particular process steps. A correction factor depending on the load is considered when calculating the running time.
  - If the door is opened during the washing or final rinse phase, this may for technical reasons result in “jumps” of the running time display when closing the door again.
  - Digit “1” (= 1 min) shortly before the end of the cycle will be indicated as long as the appliance is still “working”. Digit “0” will be indicated only at the actual end of the cycle, as soon as the control got into the final state.

    Information: The 7-segment display among others also indicates the fault display. (see chapter “Table of Fault Displays”)

- **Display of Cycle Run**

  There are depending on variants

  - o The cycle run is displayed by 6 LEDs arranged vertically.
  - o Following cycle steps will be indicated:v “prewash” - “wash” - “rinsing” - “final rinse” - “drying” - “end”
  - o The indicated cycle steps are adjusted to the process run.
  - o Selecting a cycle key, but before the actual cycle start, all cycle steps included in the cycle run will be indicated simultaneously.
  - o After the cycle start only the LED relating to the corresponding working process will still light.
  - o The switching from one cycle step to the next one is made step-by-step.
  - o “End” is only indicated at the actual end of the cycle, when the control got into the final state.

- **Status Display**

  - **o LED display salt**
    - “on” when salt must be refilled
    - goes out after salt addition

  - **o LED display rinse-aid**
    - “on” when rinse-aid must be refilled
    - goes out after rinse-aid addition

  - **o LED display water**
    - “on” with missing or insufficient water fill
    - see chapter Operation 10 - “C1”-fault

  - **o LED display sieve**
    - “on” (if counter has reached 20) at the end of the cycle
    - goes out after the start of a new cycle - counter is reset to 0

  - **o LED display door**
    - “on” with door opened during the cycle run
    - goes out when door is closed

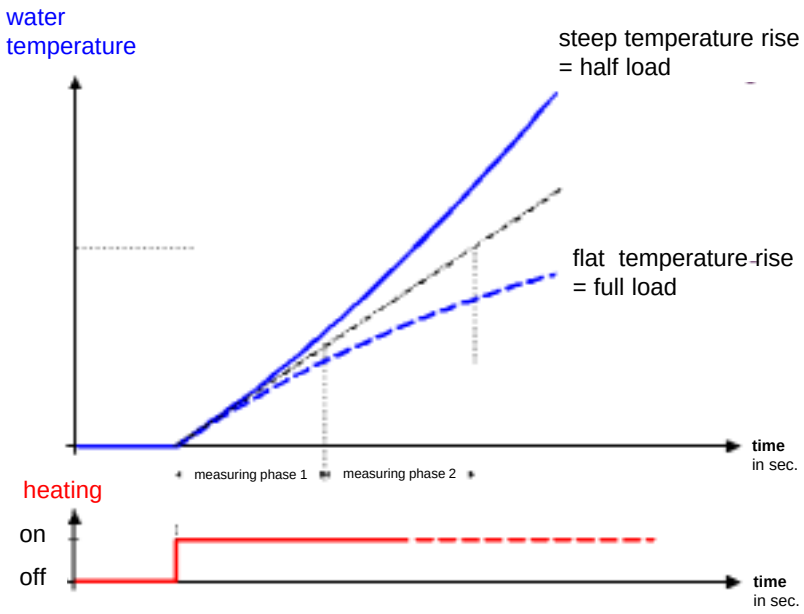
  - **o LED display sprayarm**
    - “on” with blocked middle sprayarm
    - additional acoustic signal

Energy Label AAA

In order to be able to lead the optimum value “AAA”, among others following features have to exist and/or conditions to be made.

- **Drying by Fan**
  - o To get a very good drying result a fan drying is absolutely necessary.
- **Positioning of Sprayarm**
  - o At the end of the final rinse the middle sprayarm is in a defined position.
  - o This is to avoid that water will drop to the dry dishes and worsen the drying result when drawing out the upper basket.
- **Intelligent Monitoring of Heating**
  - o A connection will be made between the required heating time during washing and final rinse and the running times in the individual cycle phases.
  - o If the adjusted maximum heating time should not be sufficient to heat up to the required temperature, the heating will be interrupted in this step. This may happen e.g. by a very cold water fill or dishes.
  - o The still missing temperature will be compensated by an additional cycle running time which is determined in a table. Thus the cycle phase period of “washing”, “final rinse” or “drying” could be extended.
  - o This is to guarantee that the energy value required for AAA will not be exceeded, but at the same time will not worsen the washing result.
- **Miscellaneous**
  - o Sprayarms with an optimized arrangement of nozzles, in addition a third sprayarm instead of a ceiling shower.
  - o Cutlery deposit and optimized dishwasher baskets.
  - o Optimized process technology.

Fuzzy Detection of Load



Cycles with Active Fuzzy Detection:

- intensive 70° and intensive 65°
- auto 65° and auto bio 50°
- normal 65° and normal bio 50°
- eco 65°C and eco bio 50°
- normal/eco 65° and normal/eco bio
- AAA cycle (eco)
- option “superwash” (together with cycles intensive 70° / 65° and normal 65°)

Cycle Phases Being Actively Affected by the Fuzzy Detection of Load:
(Changes when detecting half and/or empty load)

- Reduced duration of washing (depending on the particular cycle, between 4 and 6 minutes).
- Drop of 2nd rinsing with all intensive cycles.
- Reduced duration of rinsing (appox. by 2 minutes).
- Temperature reduction by 5°C in the final rinse in appliances with an active drying (exception: 50° cycles).

Dishwasher

Fully-Integrated, Integrated, Substructure, Upright Dishwashers with Flow-Type Heaters and Easytronic Plus

Specifications

Cycle Functions

Easytronic plus enables the realization of all following cycles. At the time being there are dishwashers with a selection of 8 washing cycles and one manufacturing test routine.

Easytronic plus for appliances with rotary slide

Variant 1 - With Fan											
No.	Cycle	Fuzzy detection load	Option superwash eligible	Turbid. sensor	Prewash	Wash	1st inter-med. rinsing	2nd inter-med. rinsing	Final Rinse	Drying	Comment
1	superwash	✔	✔	---	55°C+soak.	70°C+time	cold	cold*	70°C	24min fan	eligible as option
2	intensive 70°	✔	✔	---	40°C	70°C	cold	cold*	70°C	24min fan	
3	intensive 65°	✔	✔	---	40°C	65°C	cold	cold*	70°C	24min fan	
4	normal 65°	✔	✔	---	cold	65°C	cold	---	70°C	24min fan	
5	auto 65°	✔	---	✔	(cold)	65°C	cold	cold**	70°C	24min fan	with turbidity function
6	normal/eco 65°	✔	---	---	cold ½	65°C	cold	---	70°C	24min fan	norm. with ½ prewash
7	eco 65°	✔	---	---	---	65°C	cold	---	70°C	24min fan	
8	normal bio 50/60°	✔	---	---	cold	50/60°C	cold	---	65°C	24min fan	
9	eco 50°	✔	---	---	cold	55°C/var.	cold	---	60°C var.	var. fan	bio with time extens.
10	auto bio 50/60°	✔	---	✔	(cold)	50/60°C	cold	cold**	70°C	24min fan	with turbidity function
11	normal/eco bio	✔	---	---	cold ½	50/60°C	cold	---	65°C	24min fan	norm. ½ with prewash
12	eco bio 50/60°	✔	---	---	---	50/60°C	cold	---	65°C	24min fan	
13	quick normal	---	---	---	55°C ½	60°C	quick hot	---	60°C	12min fan	quick normal cycle
14	quick 50°(party)	---	---	---	---	50°C	quick	---	55°C	---	quick/party cycle
15	quick 40°(party)	---	---	---	---	40°C	quick	---	55°C	---	quick/party cycle
16	prewash extra	---	---	---	cold	---	---	---	---	---	
17	manuf. rout. 1	---	---	---	rinsing out	---	50°C	---	regen.	---	test routine
18	manuf. rout. 2	---	---	✔	rins.out+ turbid.sensor	---	50°C	---	regen.	---	test rout.with turbidity sensor

Variant 3 - Without Fan											
No.	Cycle	Fuzzy detection load	Option superwash eligible	Turbid. sensor	Prewash	Wash	1st inter-med. rinsing	2nd inter-med. rinsing	Final Rinse	Drying	Comment
1	superwash	✔	✔	---	55°C+soak.	70°C+time	cold	cold*	70°C	24min fan	eligible as option
2	intensive 70°	✔	✔	---	40°C	70°C	cold	cold*	70°C	24min fan	
3	intensive 65°	✔	✔	---	40°C	65°C	cold	cold*	70°C	24min fan	
4	normal 65°	✔	✔	---	cold	65°C	cold	---	70°C	24min fan	
5	auto 65°	✔	---	✔	(cold)	65°C	cold	cold**	70°C	24min fan	with turbidity function
6	normal/eco 65°	✔	---	---	cold ½	65°C	cold	---	70°C	24min fan	norm. with ½ prewash
7	eco 65°	✔	---	---	---	65°C	cold	---	70°C	24min fan	
8	normal bio 50/60°	✔	---	---	cold	50/60°C	cold	---	65°C	24min fan	
9	eco 50°	✔	---	---	cold	55°C/var.	cold	---	60°C var.	variable	bio with time extens.
10	auto bio 50/60°	✔	---	✔	(cold)	50/60°C	cold	cold**	70°C	24min fan	with turbidity function
11	normal/eco bio	✔	---	---	cold ½	50/60°C	cold	---	70°C	24minfan	norm. ½ with prewash
12	eco bio 50/60°	✔	---	---	---	50/60°C	cold	---	70°C	24min fan	
13	quick normal	---	---	---	55°C ½	60°C	quick hot	---	60°C	12min fan	quick normal cycle
14	quick 50°(party)	---	---	---	---	50°C	quick	---	55°C	---	quick/party cycle
15	quick 40°(party)	---	---	---	---	40°C	quick	---	55°C	---	quick/party cycle
16	prewash extra	---	---	---	cold	---	---	---	---	---	
17	manuf. rout. 1	---	---	---	rinsing out	---	50°C	---	regen.	---	test routine
18	manuf. rout. 2	---	---	✔	rins.out+ turbid.sensor	---	50°C	---	regen.	---	test rout.with turbidity sensor

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* = execution depending on load detection
** = execution depending on turbidity value

Dishwasher

Fully-Integrated, Integrated, Substructure, Upright Dishwashers with Flow-Type Heaters and Easytronic Plus

Specifications

Easytronic plus for appliances without rotary slide

Variant 2 - With Fan											
No.	Cycle	Fuzzy detection load	Option superwash eligible	Turbid. sensor	Prewash	Wash	1st rinsing	2nd rinsing	Final Rinse	Drying	Comment
1	superwash	✔	✔	---	55°C+soak.	70°C+time	cold	cold*	70°C	24min fan	eligible as option
2	intensive 70°	✔	✔	---	40°C	70°C	cold	cold*	70°C	24min fan	
3	intensive 65°	✔	✔	---	40°C	65°C	cold	cold*	70°C	24min fan	
4	normal 65°	✔	✔	---	cold	65°C	cold	---	70°C	24min fan	
5	auto 65°	✔	---	✔	(cold)	65°C	cold	cold**	70°C	24min fan	with turbidity function
6	normal/eco 65°	✔	---	---	cold ½	65°C	cold	---	70°C	24min fan	norm. with ½ prewash
7	eco 65°	✔	---	---	---	65°C	cold	---	70°C	24min fan	
8	normal bio 50/60°	✔	---	---	cold	50/60°C	cold	---	65°C	24min fan	
9	eco 50°	✔	---	---	cold	55°C/var.	cold	---	60°C var.	var. fan	bio with time extens.
10	auto bio 50/60°	✔	---	✔	(cold)	50/60°C	cold	cold**	70°C	24min fan	with turbidity function
11	normal/eco bio	✔	---	---	cold ½	50/60°C	cold	---	65°C	24minfan	norm. ½ with prewash
12	eco bio 50/60°	✔	---	---	---	50/60°C	cold	---	65°C	24min fan	
13	quick normal	---	---	---	55°C ½	60°C	quick hot	---	60°C	12min fan	quick normal cycle
14	quick 50°(party)	---	---	---	---	50°C	quick	---	55°C	---	quick/party cycle
15	quick 40°(party)	---	---	---	---	40°C	quick	---	55°C	---	quick/party cycle
16	prewash extra	---	---	---	cold	---	---	---	---	---	
17	manuf. rout. 1	---	---	---	rinsing out	---	50°C	---	regen.	---	test routine
18	manuf. rout. 2	---	---	✔	rins.out+ turbid.sensor	---	50°C	---	regen.	---	test rout.with turbidity sensor

Variant 4 - Without Fan											
No.	Cycle	Fuzzy detection load	Option superwash eligible	Turbid. sensor	Prewash	Wash	1st inter-med. rinsing	2nd inter-med. rinsing	Final Rinse	Drying	Comment
1	superwash	✔	✔	---	55°C+soak.	70°C+time	cold	cold*	70°C	24min fan	eligible as option
2	intensive 70°	✔	✔	---	40°C	70°C	cold	cold*	70°C	24min fan	
3	intensive 65°	✔	✔	---	40°C	65°C	cold	cold*	70°C	24min fan	
4	normal 65°	✔	✔	---	cold	65°C	cold	---	70°C	24min fan	
5	auto 65°	✔	---	✔	(cold)	65°C	cold	cold**	70°C	24min fan	with turbidity function
6	normal/eco 65°	✔	---	---	cold ½	65°C	cold	---	70°C	24min fan	norm. with ½ prewash
7	eco 65°	✔	---	---	---	65°C	cold	---	70°C	24min fan	
8	normal bio 50/60°	✔	---	---	cold	50/60°C	cold	---	70°C	24min fan	
9	eco 50°	✔	---	---	cold	55°C/var.	cold	---	60°C var.	variable	bio with time extens.
10	auto bio 50/60°	✔	---	✔	(cold)	50/60°C	cold	cold**	70°C	24min fan	with turbidity function
11	normal/eco bio	✔	---	---	cold ½	50/60°C	cold	---	70°C	24minfan	norm. ½ with prewash
12	eco bio 50/60°	✔	---	---	---	50/60°C	cold	---	70°C	24min fan	
13	quick normal	---	---	---	55°C ½	60°C	quick hot	---	60°C	12min fan	quick normal cycle
14	quick 50°(party)	---	---	---	---	50°C	quick	---	55°C	---	quick/party cycle
15	quick 40°(party)	---	---	---	---	40°C	quick	---	55°C	---	quick/party cycle
16	prewash extra	---	---	---	cold	---	---	---	---	---	
17	manuf. rout. 1	---	---	---	rinsing out	---	50°C	---	regen.	---	test routine
18	manuf. rout. 2	---	---	✔	rins.out+ turbid.sensor	---	50°C	---	regen.	---	test rout.with turbidity sensor

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* = execution depending on load detection

** = execution depending on turbidity value

Short List of Operational and Service Functions

Easytronic plus

	activating the basic function with key(s) before pushing key 1 (on/off)		display	afterwards: selection, start or change of function with key		display
select hardness	key 2 + 3	→	LED 2 and 3 flashing	The hardness value can be changed by pushing key 3 (LED 3 flashing). First confirmation actions the display of the currently selected value. Condition of delivery: „H3“ Function scrolling - see point 6 / Display will be actualized properly.		
buzzer cutoff for cycle end	key 2 + 3	→	LED 2 and 3 flashing	The buzzer can be switched on and off respectively by pushing key 2 (LED 2 flashing). First confirmation actions the display of the currently selected value. Condition of delivery: „b1“ Display b0 and LED end off = buzzer off Display b1 and LED end flashing = buzzer on.		
manufacturing test routine	key 2 + 4	→	LED 2 and 4 flashing	key 4	→	LED 4 flashing, cycle start via 7-segment display and PAA LED
single actuators selection	key 2 + 5	→	LED 2 and 5 flashing	key 2	→	LED 2 and 5 flashing
output service fault memory	key 2 + 5	→	LED 2 and 5 flashing	key 4	→	LED 2, 4 and 5 flashing 7-segment display coded (PAA with VGA)
cancel service fault memory display test	key 2 + 5	→	LED 2 and 5 flashing	key 5	→	All key LEDs are flashing in change with the LEDs of PAA and other displays on the right.

List of Fault Displays - Display C

Valid for Easytronic plus control parts with I/O-variants (input/output) Easytronic plus, Easytronic, VGA

Fault	Display 7-segment	Display PAA - LEDs	acoustic display no. of squealings	Fault output visible for customers**			Inquiry fault memory (service)			output via information display	short desciption	what happens?
	7-segment or PAA possible if 7-segment, no PAA		if, depending on variants	PAA	7-seg.	AK	PAA	7-seg.	AK	if, depending on variants		
communication error	**C0**	washing	---				**X**	**X**		---	Is realized, when no data can be received and/or sent between input module and control part after the 10th attempt.	Appliance stands still and is on hold until communication is ok again.
water tap closed	**C1**	end	once	**X**	**X**	**X**	**X**	**X**	**X** only VGA	LED water If LED water exists, only acoustically, no 7-segment and PAA display for customers	Switch point of pressure switch is not reached within 60 sec. at the latest.	Cycle LED flashes, cycle is stopped and can be continued by pushing the cycle key. Acoustic signal is interrupted by opening the door.
drain pump	**C2**	drying	twice	**X**	**X**	**X**	**X**	**X**	**X** only VGA	---	Reset point of pressure switch is not reached within 120 sec. at the latest. Cycle will be stopped.	Cycle LED flashes, cycle is stopped and can be continued by pushing the cycle key. Acoustic signal is interrupted by opening the door.
aqua control	**C3**	drying end	3 times	**X**	**X**	**X**	**X**	**X**	**X** only VGA	---	Drain pump is working although it is not selected by electronic board.	Cycle stops and restarts automatically after end of fault. Acoustic signal is interrupted by opening the door.
---	**C4**	final rinse	---							---	---	---
turbidity sensor	**C5**	final rinse end	5 times				**X**	**X**	**X** only VGA	---	The turbidity signal necessary for calibration is not reached within 8 sec.	Turbidity detected. Cycle run is adapted accordingly.
---	**C6**	final rinse drying	---							---	---	---
heating	**C7**	final rinse drying end	7 times				**X**	**X**	**X** only VGA	---	During heating no temperature increase by a minimum of 1.5K is recorded within 3 min.	Cycle will be continued until the end without the heating function!
NTC sensor	**C8**	intermediate rinsing	8 times				**X**	**X**	**X** only VGA	---	NTC short circuit or interruption.	Cycle will be continued until the end without the heating function!
tacho	**C9**	intermediate rinsing end	9 times				**X**	**X**	**X** only VGA	---	With a selected circulation pump no tacho signal will be received for 25 sec.	The circulation pump will be driven without control. With flow-type heater appliances the heating will be cut off after 5 sec. This function will then be controlled in every step.
circulation pump triac short circuit	**CA**	intermediate rinsing drying	10 times	**X**	**X**		**X**	**X**	**X** only VGA	---	Tacho signals are detected although the circulation pump is not selected.	Cycle will end and water flows until the switch point of the pressure switch.
rotary slide	**Cb**	intermediate rinsing drying end	11 times				**X**	**X**	**X** only VGA	---	a) The required position of the rotary slide is not reached within 4.3 min. b) The rotary slide position changes without selecting the rotary slide.	Cycle continues. Heating will be cut off with flow-type heater appliances.
servo door lock (only VGA)	**CE**	washing drying end	14 times	**X**	**X**	**X only VGA**	**X**	**X**	**X** only VGA	---	---	---
programming error with forming variant	**Cf**	washing end	15 times				**X**	**X**	**X** only VGA	---	Check sum in EEPROM is not correct. Is only detected after switching on!	No program selection possible. On/Off-LED on.
fault I/O variant (input/output)	**---**	---	---	**---**	**---**	**---**	**---**	**---**	**---**	---	Wrong I/O variant programmed. I/O component does not match the control component.	No program selection possible. On/Off-LED on / On/Off-LED flashes with VGA.

AK = with Easyplus, if option existing and programmed and/or always with VGA
**** = if 7-segment existing, no PAA display of fault**

Fault	Display 7-segment	Display PAA - LEDs	display acoustic no. of squealings	Fault output visible for customers**			Inquiry fault memory (service)				output via information displays	short desciption	what happens?
	7-segment or PAA possible if 7-segment, no PAA		if, depending on variants	PAA	7-seg.	AK	PAA	7-seg.	AK		if, depending on variants		
	A0	prewashing washing	---										
	A1	prewashing end	---										
	A2	prewashing drying	---										
	A3	prewashing drying end	---										
sprayarm	A4	prewashing final rinse	steady tone if sprayarm is positioned upside			x	x	x			LED sprayarm	Fault detected if sprayarm upside and a minimum of 4 revolutions is not detected after 35 sec.	Fault output until rotational speed of sprayarm is detected or if no selection was made.
	A5	prewashing final rinse end	---										
overflooding device	A6	prewashing final rinse end	---				x	x			---	Maximum fill time after filling to level is 104 sec. A fault will be detected if that time is exceeded.	Valve is no longer selected until the next drain step (drain to level). Level-dependent filling steps passed. During that time no heating selection.
	A7	prewashing final rinse drying end	---										
	A8	prewashing intermediate rinsing	---										
	A9	prewashing intermediate rinsing end	---										
	AA	prewashing intermediate rinsing drying	---										
	Ab	prewashing intermediate rinsing drying end	---										
	AE	prewashing washing drying end	---										
	Af	prewashing washing end	---										

AK* = with Easy plus, if option existing and programmed

Test Routine

time / seconds	level	temperature	pump	circulation pump	drying	comment () = function possible
variable	to reset point		on			pumping off
10			on			pumping off
8						calibration of turbidity sensor
variable	filling to switch point level					filling
variable	to reset point		on			pumping off
20			on			pumping off
variable	filling to switch point level					filling
15	filling (approx. 1 liter)					filling
5	(dynamic filling) level controlled			2400 rpm		(filling) / cirulating
20	(dynamic filling) level controlled			2800 rpm		(filling / circulating)
4						pause
15	(dynamic filling) level controlled			2800 rpm		(filling) / recirculating
4						pause
15	(dynamic filling) level controlled			2800 rpm		(filling) / circulating
variable	(dynamic filling) level controlled			2800 rpm		(filling) / circulating rotary slide to position above
5	(dynamic filling) level controlled			2800 rpm		(filling) / circulating addition of detergent
variable (max. 1200 sec.)	(dynamic filling) level controlled to 50 °C or 1200 sec.			2800 rpm		(filling) / circulating heating
60				2800 rpm		circulating / rotary slide
variable				2800 rpm		circulating / rotary slide to position above
5				2000 rpm		circulating
variable				2800 rpm		upper sprayarm to position 220°
variable	to reset point		on			pumping off
25			on			pumping off
20						pause
15			on			pumping off
210					on	regeneration if necessary
variable	to reset point		on			pumping off

Single Actuator Selection

Carry out the call according to the list of operational and service functions. So the actuators are selected in accordance with the below described order for 5 seconds each. After having reached the last position the actuator selection starts from the beginning. The mode of single actuator selection will be left after 2 minutes or by switching off the appliance.

1. inlet valve
2. regenerating valve
3. circulation pump (is operating in the previous series with 1000 rpm)
4. rotary slide
5. drain pump
6. fan and flap turbo drying
7. detergent dispenser

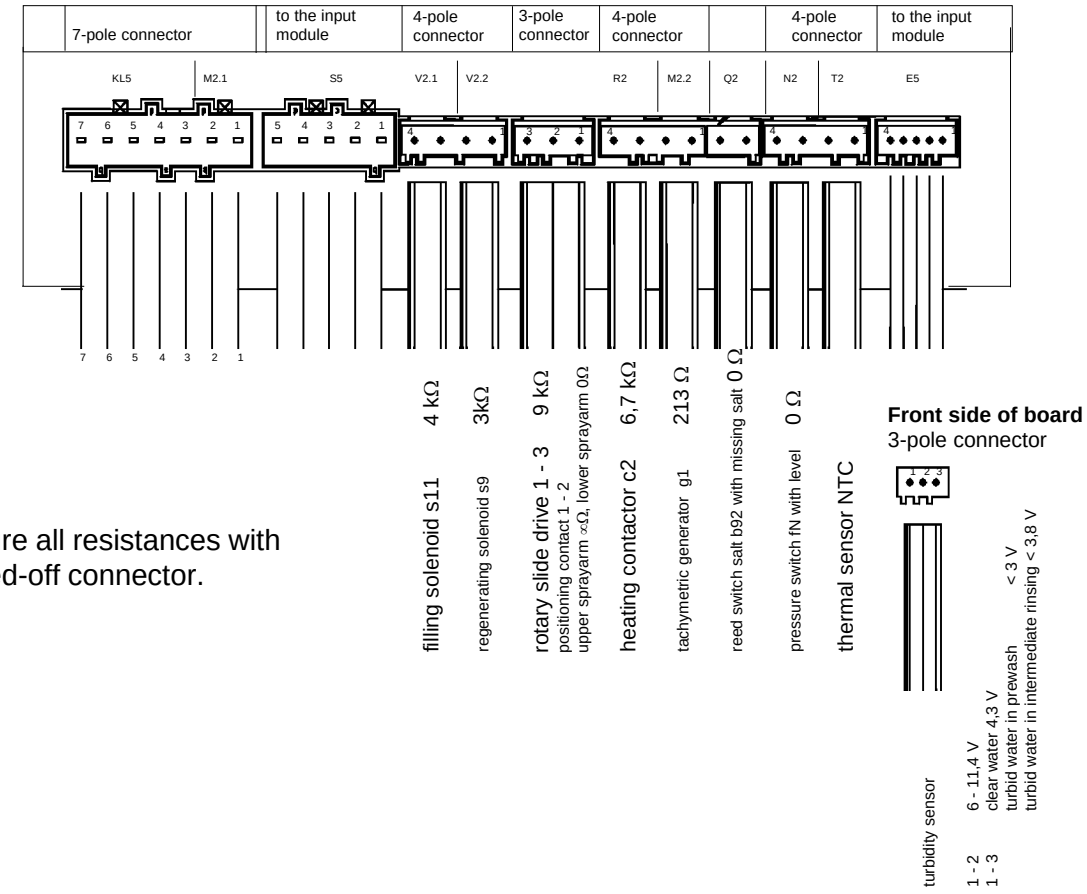
The heating is not switched on during the single actuator selection, as the heating would be damaged in appliances with flow-type heaters.

Dishwasher

Fully-Integrated, Integrated, Substructure, Upright Dishwashers with Flow-Type Heaters and Easytronic Plus

Specifications

Measuring points at the electronic control (in the base)



Measure all resistances with plugged-off connector.

7-pole connector	Pin	resistance
Attention! With the 7-pole connector clamps 7 and 5 have the mains voltage. When measuring the resistance the mains plug must be absolutely unplugged or the fuse turned off.		
circulation pump main winding m8	1 - 2	59 Ω
float switch f 16.2	3 - 4	normal 0 Ω
float switch f 16.2	4 - 5	normal ∞ Ω
drain pump m3 normal	4 - 6	170 Ω
drain pump m3 float switch f 16.1 has reacted	4 - 7	170 Ω

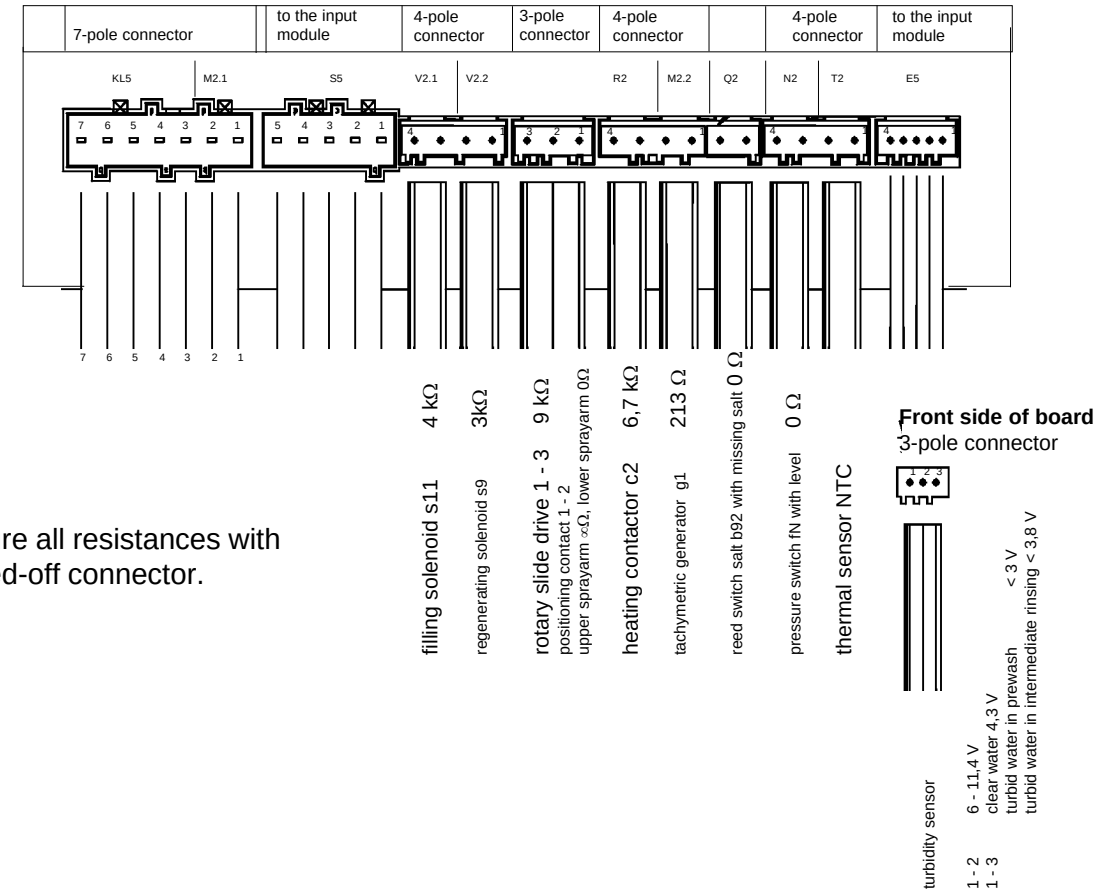
NTC temperature sensor	
temperature/resistance	20 °C / 6032 Ω
	25 °C / 4829 Ω
(only with fully electronic	30 °C / 3891 Ω
dishwashers)	40 °C / 2573 Ω
	50 °C / 1741 Ω
	55 °C / 1444 Ω
	60 °C / 1204 Ω
	65 °C / 1009 Ω
	70 °C / 849 Ω

Dishwasher

Fully-Integrated, Integrated, Substructure, Upright Dishwashers with Flow-Type Heaters and Easytronic Plus

Specifications

Measuring points at the electronic control (in the base)



Measure all resistances with plugged-off connector.

7-pole connector	Pin	Widerstand
Attention! With the 7-pole connector clamps 7 and 5 have the mains voltage. When measuring the resistance the mains plug must be absolutely unplugged or the fuse turned off.		
circulation pump main winding m8	1 - 2	59 Ω
drain pump m3 normal	5 - 6	170 Ω
drain pump m3 float switch f 16.1 or safety pressure switch fS has reacted	5 - 7	170 Ω

NTC temperature sensor	
temperature/resistance	20 °C / 6032 Ω
	25 °C / 4829 Ω
(only w ith fully electronic	30 °C / 3891 Ω
dishw ashers)	40 °C / 2573 Ω
	50 °C / 1741 Ω
	55 °C / 1444 Ω
	60 °C / 1204 Ω
	65 °C / 1009 Ω
	70 °C / 849 Ω