





TC4	TC5
	

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**Washing machines with  
 electronic control system**

**EWM09312**

**Technical and functional  
 characteristics**

**INSPIRATION RANGE**

**TC4 & TC5**



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## PURPOSE OF THIS MANUAL

The purpose of this manual is to provide service engineers who are already familiar with the repair procedures for traditional washing machines with information regarding washing machines fitted with the EWM09312 (TC4&TC5) electronic control systems.

Previous platforms (electronic/mechanical) used a safety pressure switch which controlled the minimum water level in the tub, beneath which the supply to the heating element was interrupted.

The current electronic appliances manufactured (EWM09312 platform) use a heating element with thermal fuses (inside its branches) for safety, which interrupt in case of temperature overload caused by the water level dropping below the minimum level permitted.

The incorporated NTC probe contacts have a 2.5 mm pitch.

The manual deals with the following topics:

- General characteristics
- Control panel and compatibility between washing programmes and options
- Settings: Demo, Diagnostics
- Alarms
- Technical and functional characteristics
- Accessibility

### **Caution:**

The selector on this platform is not fitted with an ON/OFF switch. To cut off the power supply to the appliance, the plug has to be taken out of the socket.

### **Low consumption mode**

In order to reduce electricity wastage when the cycle is not running, appliances in this platform offer two ways of enabling low consumption mode:

- Stand-By
- Stand-Off

Stand-By – Triggered after five minutes, during programme selection (after the washing machine not receiving any commands from the sensors or the selector dial) and at the end of the wash cycle. All LEDs are turned off (the Display, too, where featured), with the exception of the yellow LED on the START/PAUSE sensor, which flashes at a very low frequency to signal that the appliance is powered, but is in a low power consumption mode. The appliance exits Stand-By mode when any of the sensors are pressed or the knob is turned. The control panel lights up and displays the status of the appliance (last programme selected or end of programme) before Stand-By mode was entered.

Stand- Off – The appliance is in “Stand-Off” (virtual off) status when the selector dial is set to “OFF” or “0” (zero). Indeed this position leads to the cancelling of any programme that might have been selected, the LEDs being turned off, along with the Display, where featured.

While the main board and the components upstream of the door safety interlock remain powered.

### **The plug must be removed from the mains socket to cut the power to the appliance.**

To ensure the appliance is always **safe to operate**, even when you turn the selector dial to the OFF position (to cancel a programme in progress), with a high water level and the motor in motion, this will only translate to the user interface (control panel) being turned off, while the main board remains powered to keep the door safety interlock locked until the safety conditions are achieved.

# 1 WARNINGS



- **Any work on electrical appliances must only be carried out by qualified technicians.**
- **Before servicing an appliance, check the efficiency of the electrical system in the home using appropriate instruments. For instance, please refer to the instructions provided/illustrated in the Electrolux Learning Gateway portal (<http://electrolux.edvantage.net>).**

**On completing operations, check that the appliance has been restored to the same state of safety as when it came off the assembly line.**

- **If the circuit board has to be handled/replaced, use the ESD kit (Code 405 50 63-95/4) to avoid static electricity from damaging the circuit board, see S.B. No. 599 72 08-09 or consult the course “Electrostatic charges” at the address (<http://electrolux.edvantage.net>) on the Electrolux Learning Gateway portal.**
- **This platform is not fitted with an ON/OFF switch. Before you access internal components, take the plug out of the socket to cut the power supply.**
- **Make resistance measurements, rather than direct voltage and current measurements**
- **Warning the sensors located on the display board could be at a potential of 220 Volts.**
- **When replacing the heating element, replace it with one that has the same characteristics (2 thermal fuses) in order not to compromise the safety of the appliance. Do not remove/switch the NTC sensors between heating elements.**
- **Always empty the water drainage circuit before laying the appliance on its side.**
- **Never place the appliance on its right side (electronic control system side): some of the water in the detergent dispenser could leak onto the electrical/electronic components and cause these to burn.**
- **When replacing components, please refer to the code shown in the list of spare parts relating to the appliance.**

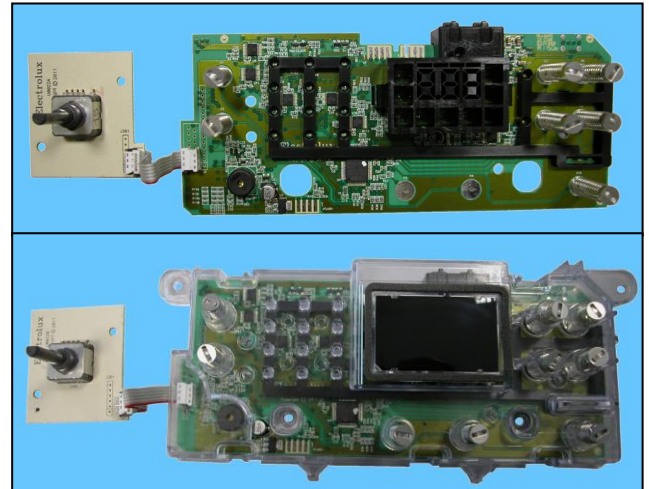


## 2 TC4

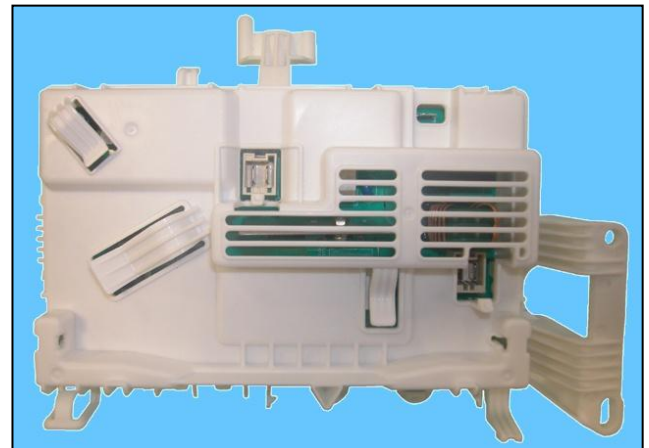
### 2.1 General characteristics

The EWM09312 electronic control system consists of two circuit boards.

- ↪ The control/display circuit board, inserted in a plastic box, secured to the control panel (the figure illustrates: the display board with the side socket in which the selector is fixed, connected together by a flat cable, and the display board assembly).



- ↪ Main board, positioned at the rear of the appliance. It powers the electrical components and receives commands from the display board.

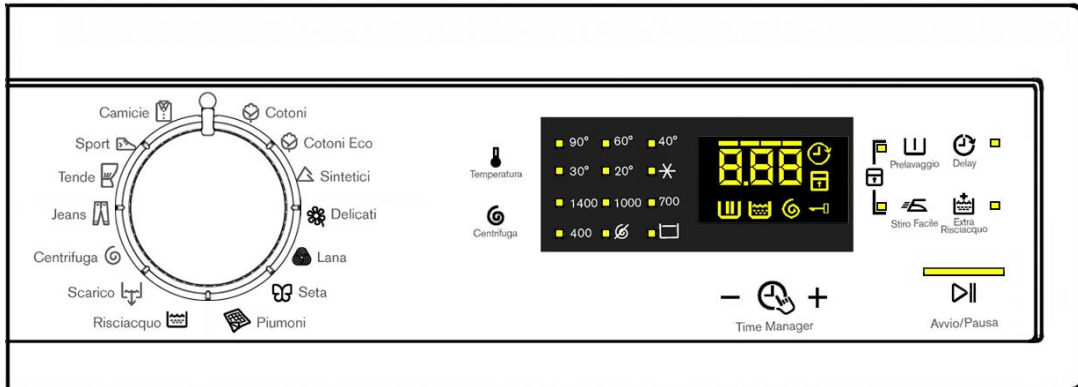


<b>No. of touch-sensitive keys</b>	<ul style="list-style-type: none"> <li>▪ Maximum 9 (8 options + start/pause)</li> </ul>
<b>No. LEDs</b>	<ul style="list-style-type: none"> <li>• Maximum 27 yellow + 1 red LED + Digit (made up of 22 LEDs)</li> </ul>
<b>Programme selector</b>	<ul style="list-style-type: none"> <li>▪ 15 positions (incorporated in the circuit board)</li> </ul>
<b>Power supply voltage</b>	<ul style="list-style-type: none"> <li>▪ 220/240 V</li> <li>▪ 50/60 Hz (configurable)</li> </ul>
<b>Washing type</b>	<ul style="list-style-type: none"> <li>▪ Traditional with "Eco-ball"</li> </ul>
<b>Rinsing system</b>	<ul style="list-style-type: none"> <li>▪ Traditional with "Eco-ball"</li> </ul>
<b>Motor</b>	<ul style="list-style-type: none"> <li>▪ Collector, with tachometric generator (universal)</li> </ul>
<b>Spin speed</b>	<ul style="list-style-type: none"> <li>▪ 1,000÷1,600 rpm</li> </ul>
<b>Anti-unbalancing system</b>	<ul style="list-style-type: none"> <li>▪ AGS</li> </ul>
<b>Cold water fill</b>	<ul style="list-style-type: none"> <li>▪ 1 solenoid valve with 1 inlet – 2 outlets</li> </ul>
<b>Detergent dispenser</b>	<ul style="list-style-type: none"> <li>▪ 2 compartments: wash, conditioners</li> </ul>
<b>Control of water level in the tub</b>	<ul style="list-style-type: none"> <li>▪ Electronic/analogue pressure switch</li> </ul>
<b>Door safety interlock</b>	<ul style="list-style-type: none"> <li>▪ Traditional (with PTC)</li> </ul>
<b>Heating element heat output</b>	<ul style="list-style-type: none"> <li>▪ 1,750 W with thermal fuses incorporated</li> </ul>
<b>Temperature check</b>	<ul style="list-style-type: none"> <li>▪ NTC probe incorporated in the heating element</li> </ul>
<b>Buzzer</b>	<ul style="list-style-type: none"> <li>▪ Traditional incorporated in the PCB</li> </ul>

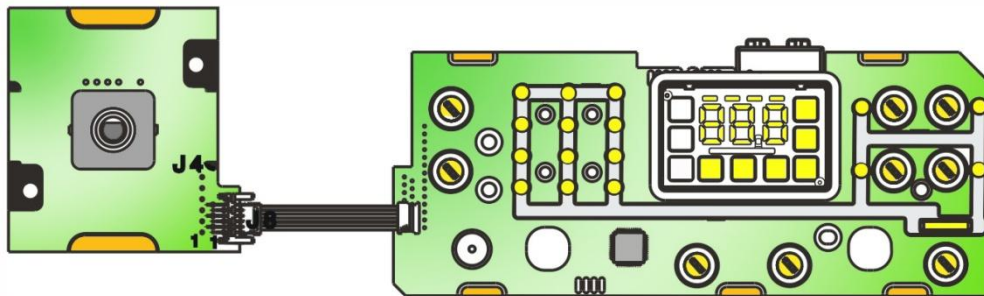
## 2.2 Control panels

### 2.2.1 Styling

- Max. 9 touch push buttons
- 15 position programme selector
- 27 yellow LEDs + 1 red LED
- Digits made up of 22 LEDs

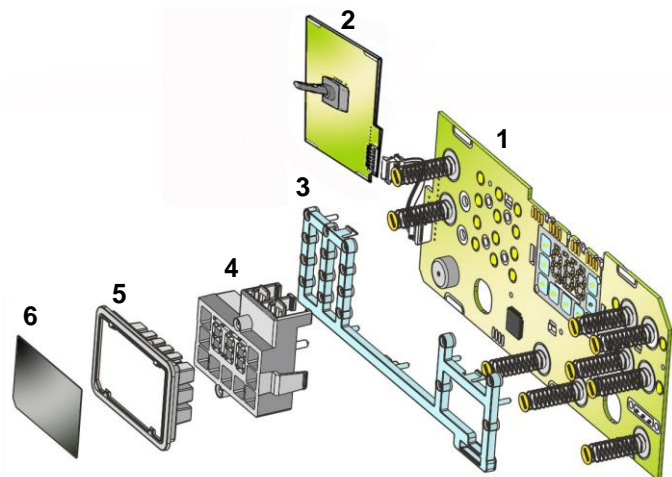


### 2.2.2 Display board

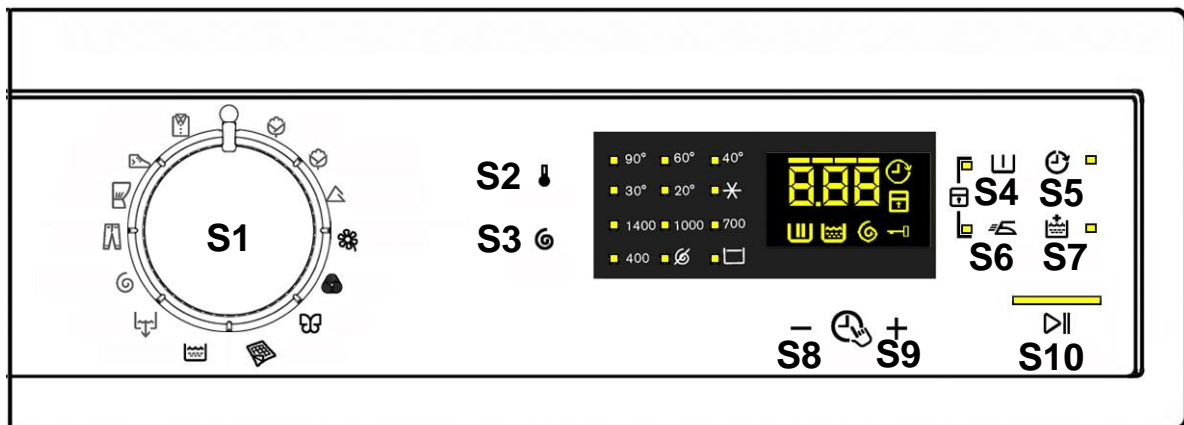


- Display board assembly, exploded view

1. Display board
2. Selector card with knob
3. Light divider
4. Digits light conveyor
5. Digits light diffuser
6. Silk-screen printed digital filter



## 2.2.3 Control panel configuration



The washing programmes, the functions of the selector knob and the various buttons vary according to the model, since these are determined by the configuration of the appliance.

### 2.2.3.1 Programme selector (S1)

The knob has 15 non configurable positions.

There is no ON/OFF switch.

The 0 (zero) position is reserved for resetting the programme that is running and turn off all the LEDs on the display board.

The plug must be removed from the mains socket to cut the power to the appliance.

The various positions of the selector may be configured to perform different washing programmes (e.g. water level, drum movement, no. of rinses and the washing temperature to be selected according to the type of garments).

The selector can be turned both clockwise and anti-clockwise.

For each programme, the compatible options and other parameters are defined.

The programme temperature is selected using the relevant sensor.



### 2.2.3.2 Programme configuration

The table below lists the parameters that can be used to define the washing programmes.

<b>Types of fabric</b>	Cotton/linen, Synthetic fabrics, Delicates, Wool, Hand-wash, Shoes, Jeans, Duvet, Silk.
<b>Special programmes</b>	Cotton/linen + pre-wash, Soak, Miniprogramme, Easy-Iron, Conditioner, Rinse, Drain, Spin, Economy.
<b>Temperature</b>	Normal, Minimum, Maximum: the initial temperature is the one proposed by the washing programme.
<b>Spin</b>	Normal, Minimum, Maximum.
<b>Options (Normal/Possible)</b>	Rinse Hold, Pre-wash, Extra rinse, Easy-Iron, Economy (energy label), Normal, Super quick, Reduced spin speed, No spin.
<b>Programme phases</b>	Pre-wash, Wash, Rinses, Spin, Delayed start.



### 2.2.3.3 Sensor – LEDs and Display

The function of each touch sensor is defined via the configuration of the appliance (the data and images are for guidance only).

The touch sensors are positioned under the silk-screen printed symbols on the control panel (circled here in red).



A light touch on the centre of the symbol is enough to activate/deactivate the function linked to the sensor with the switching on/off of the relative Led confirming that the enabling/disabling has taken place.

Simultaneously to the enabling/disabling of the options, the cycle duration time is updated via the digits.

You need to keep your finger pressed down for a longer period of time with the Start/Pause sensor to confirm both the cycle's start and pause, in order to avoid unwanted starts or accidental pauses.

Every time you touch a sensor, you need to lift your finger up by a centimetre and half a second needs to elapse before touching it again, otherwise the electronic system does not recognise that the sensor has been touched for a second time.

The sensors used for adjusting the: Temperature, Spin, delayed Start and Time Manager have a continued variation of values as long as your finger is in contact with the sensor.

#### 👉 **Sensor no. 2: TEMPERATURE** (configurable)

The temperature is always associated with the first sensor, in combination with the six LEDs located in the top left hand corner of the display.

The initial temperature displayed is that set for the chosen programme. By touching the sensor you can lower the temperature. Once this has been reached the selection starts again from the highest available one for the selected programme.

The selected temperature is shown by turning on the LEDs near the silk-screen printed value on the control panel.



The temperatures available (displayed in °C) are: **90°C, 60°C, 40°C, 30°C, 20°C cold cycle.**

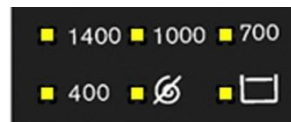
The cold cycle is indicated by the symbol .

The initial temperature set for each programme is configurable.


The temperature of 50°C is not envisaged.

↩ **Sensor no. 3: SPIN SPEED** (configurable)

The spin speed is always associated with the second sensor, in combination with the six LEDs located in the bottom left hand corner of the display.



The initial spin speed displayed is that set for the chosen programme.

Touching the sensor you can reduce the spin speed, indicated by the LED near the silk-screen printed value on the control panel coming on. Once the lowest speed has been reached you can, if you wish, select “No spin”, “Stop water in tub” lighting up the relative symbol , or “Night cycle” (if compatible with the selected programme).

The next selection will be the highest speed available for the selected programme.

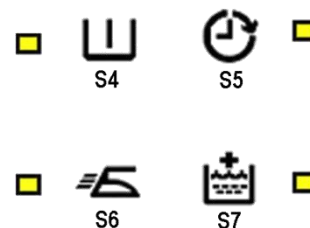
The speeds that can be combined with the six LEDs are shown in the following table.

Max spin speed (rpm)	800	1,000	1,000	1,200	1,200÷1,400	1,200÷1,400	1,400÷1,600	1,400÷1,600	1,400÷1,600	1,400÷1,600
Intermediate	600	800	800	800	1,000	,000	1,200	1,200	1,200	1,200
Intermediate	400	400	600	400	800	800	800	800	1,000	1,000
Intermediate	No speed	No speed	400	No speed	400	400	400	400	800	800
Intermediate	Rinse hold	Rinse hold	No speed	Rinse hold	Rinse hold	No speed	Rinse hold	No speed	Rinse hold	No speed
Last selection	Night Cycle	Night Cycle	Rinse hold	Night Cycle	Night Cycle	Rinse hold	Night Cycle	Rinse hold	Night Cycle	Rinse hold

↩ **Sensor no. 4-5-6-7** (configurable)

Each of the sensors located on the right hand side of the display can be combined with a LED and are used to choose one of the following four selected options:

- ↩ Delayed Start
- ↩ Extra-rinse
- ↩ Easy Iron
- ↩ Pre-wash



Depending on the option/choices, the programme duration time is updated (via the three digits).

↩ **Sensor no. 8-9**

These two sensors are positioned under the display and act as:

- ↩ Time manager

Allowing the end user to lengthen or shorten the washing cycle duration, this adjustment should be done after setting the temperature value and the spin speed.

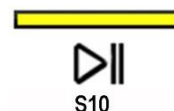


• **Sensor no. 10**

This sensor has the START/PAUSE function, used to start up a washing programme, after selecting the washing cycle and required options; it can also pause a cycle that has already started: to allow you to change selected option or open the door (if the temperature conditions or water level allow for this).

The cycle re-starts if you touch the sensor again.

The Led combined with this sensor flashes slowly: in the selection phase, during the pause and at the end of a cycle with water in the tub. It stays lit when a cycle is running and turns off when the cycle has ended and the door is unlocked.



While other sensors when touched immediately change from selected to de-selected, in the case of this sensor, more time is needed to avoid unwanted cycle start ups or pauses.

## Display

The display is produced by a black film with transparent, silk-screen printed symbols, that are lit by yellow LEDs when activated.



The display shows the following information.

↖ - **Duration of the washing programme**, which appears after it has been selected. This time corresponds to the time required for the maximum wash load for each type of programme. If an option is selected/deselected, the time is automatically updated. After the programme has started, the time decreases (and is updated) minute by minute.



↖ - **End of the programme** is indicated by a **permanently lit zero** (when the door can be opened).




↖ - **Appliance stopped with water in the tub**, after the programmes with the RINSE HOLD option. This is displayed by a **permanently lit zero**. The symbol indicating the door remains on and the LED of the START/PAUSE sensor is turned off. The washing machine continues to operate, rotating the drum once every 2 minutes.

↖ - **Delayed start**  
selected using the relative sensor, every time the delayed time is pressed, it increases and is simultaneously shown on the display.  
↖ Up to 90 minutes the increases are of 30 minutes (↖ 30 min. ↖ 60 min. ↖ 90 min.)  
↖ From 2÷20 hours the increases are of 1 hour (2hrs. ↖ 3hrs... ↖ 20h ↖ 0h).



In order to reset the delay time, reach the maximum delay time (20 hours) and the next time the sensor is pressed the delay time is cancelled.

Once the delay time has been set, after 3" of no sensor being touched, the display will once again show the programme's duration time. Press the sensor once to view the set delay time. After starting the cycle the display shows the delay time count down.

The icon  and LED near the silk-screen printed symbol stay on, for the entire selection and delay phase, to show that the function is active.

During the last hour, the time decreases minute by minute.

To cancel the delayed start time, after the cycle has started, pause the washing machine using the related sensor and cancel the option.

↖ - **Padlock:**

When lit, it indicates that all the sensors are disabled to prevent children from altering, starting or pausing the cycle.

To disable this function, a sensor combination needs to be pressed, which can be printed on the control panel or described in the instruction manual.



↩ - **Incorrect choice:**

Displayed by the message “Err”, when a function that is not compatible with the chosen programme is selected.  
The display duration is two seconds.



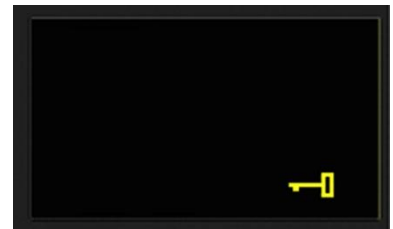
↩ - **Alarm code:**

Alarm code indicates an error in the appliance operation; the START/PAUSE sensor flashes when the code is displayed.



↩ - **Door closed:**

Lights up when the safety device prevents the door opening and switches off when the door can be opened.  
It flashes when the device is about to unlock the door (with door interlock with PTC, which needs one or two minutes to open).



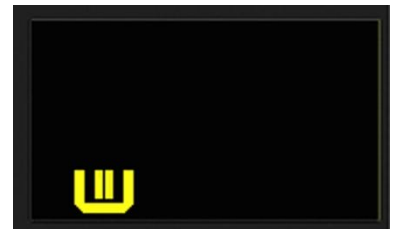
↩ - **Time manager:**

Represented by four segments positioned above the digits.  
(See para. 3.3 page 15)



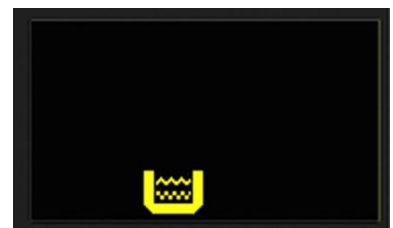
↩ - **Wash phase:**

It lights up during the washing phase.



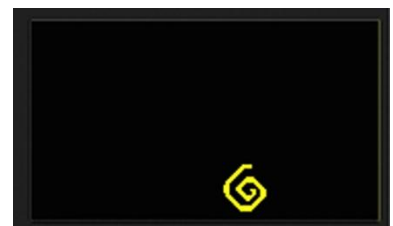
↩ - **Rinse phase:**

It lights up during the rinse phase.



↩ - **Spin phase:**

It lights up during the drainage phase before and during the final spin.



#### 2.2.3.4 Buzzer

This comprises a multi-tone buzzer and sounds in the following cases:

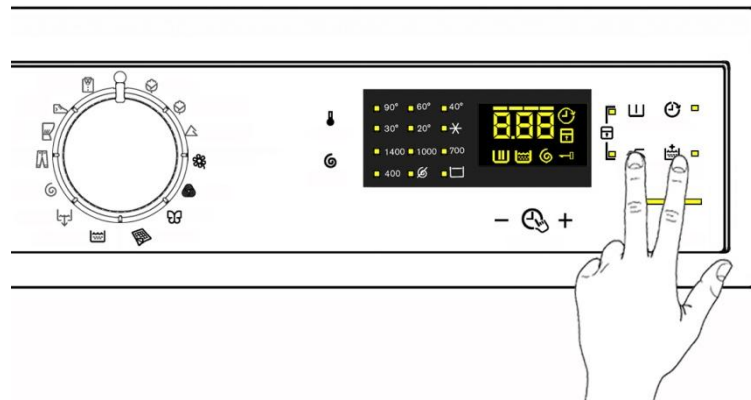
- When the machine is turned on and off it emits two different tunes.
- When a sensor is pressed it emits a short “**Click**”.
- When the cycle ends, this is indicated by a special sequence of “**three long beeps**” repeated at intervals of 15” for a total of 2 minutes. The sequence can only be stopped by opening the door in appliances where the instant door safety device with micro-switch is fitted.
- In the event of an appliance malfunction, this is indicated by a special sequence of “**three short beeps**” repeated three times at 15” intervals for 5 minutes.

All appliances are fitted with the buzzer, and leave the factory with the option enabled. To disable it use the combination of sensors.

The volume level is set in the factory and cannot be adjusted by the user.

When the buzzer is disabled (using the combination of sensors) it only emits the short “**Click**” and the sequence of “three short beeps” **when an alarm is triggered**.

During the programme selection phase, the buzzer can be enabled/disabled with a sensor combination (which may be silk-screen printed on the control panel or described in the instruction manual), but the alarm signalling remains enabled.



To enable it, touch the sensors simultaneously for 3 seconds. A short beep will confirm that it has been enabled, whereas two short beeps will confirm that it has been disabled.

## 2.3 Time manager

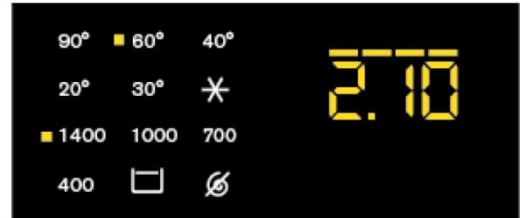
The time manager is an option available in programmes for Cotton, Synthetics, Delicates and Jeans.

During the selection of the washing cycle, four segments above the digits light up which show that the programme manages the “Time Manager” option.

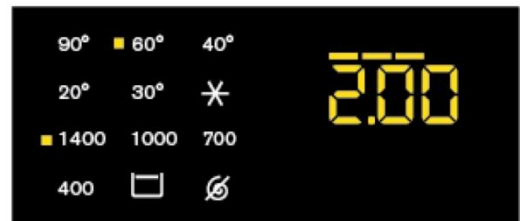
The end user can reduce the three level washing cycle duration, simultaneously with each selection: the display updates the washing cycle time and turns off a segment.

When a programme with “Time manager” is selected the four segments light up that correspond to the maximum duration time of the selected programme.

Touching the sensor with the “+” sign there is no variation. The four segments stay lit and the time shown by the digits does not vary.



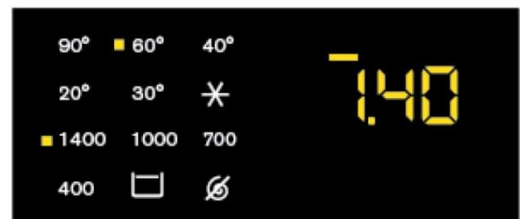
Touching the sensor with the “-” sign once, one segment turns off and simultaneously the washing time shown by the digits decreases.



Touching the sensor with the “-” sign twice, two segments turn off and simultaneously the washing time shown by the digits decreases further.



Touching the sensor with the “-” sign three times, three segments turn off and simultaneously the washing time shown by the digits decreases further. Only one segment that indicates the minimum level of the “Time manager” is still lit.



Continuing to touch the sensor with the “-” sign no other segment turns off and the time does not decrease any further.

Once the minimum level has been reached to obtain a variation, you need to touch the sensor with the “+” sign. An increase in time shown by the digits will be obtained with the respective increase in the number of segments lit, until they are all lit and the maximum time shown will be that of the programme.

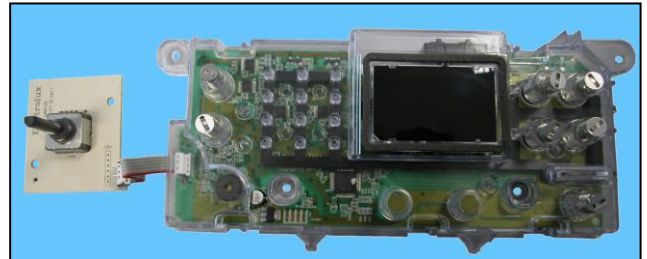
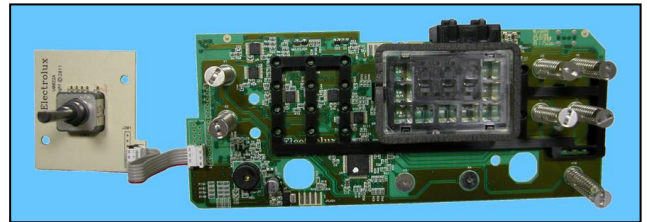
There is no “Time manager” in the “Cotton Eco” programme, however the segments are lit. By pressing the “Time manager” sensor once to reduce the time two segments are deselected.

### 3 TC5

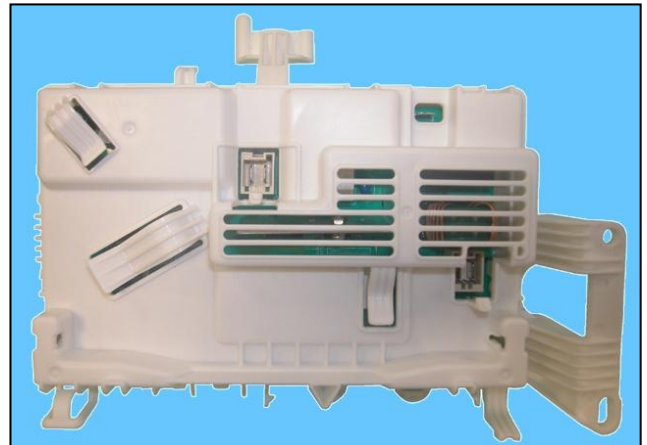
#### 3.1 General characteristics

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- ↪ The control/display circuit board, inserted in a plastic box, secured to the control panel (the figure illustrates: the display board with the side socket in which the selector is fixed, connected together by a flat cable, and the display board assembly).



- ↪ Main board, positioned at the rear of the appliance. It powers the electrical components and receives commands from the display board.



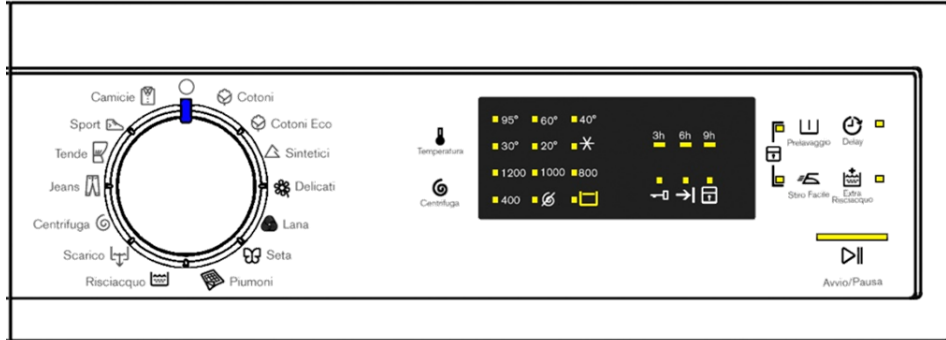
<b>No. of touch-sensitive keys</b>	<ul style="list-style-type: none"> <li>▪ Maximum 7 (6 options + 1 start/pause)</li> </ul>
<b>No. LEDs</b>	<ul style="list-style-type: none"> <li>▪ Maximum 23 yellows + 1 red</li> </ul>
<b>Programme selector</b>	<ul style="list-style-type: none"> <li>▪ 15 positions (incorporated in the circuit board)</li> </ul>
<b>Power supply voltage</b>	<ul style="list-style-type: none"> <li>▪ 220/240 V</li> <li>▪ 50/60 Hz (configurable)</li> </ul>
<b>Washing type</b>	<ul style="list-style-type: none"> <li>▪ Traditional with "Eco-ball"</li> </ul>
<b>Rinsing system</b>	<ul style="list-style-type: none"> <li>▪ Traditional with "Eco-ball"</li> </ul>
<b>Motor</b>	<ul style="list-style-type: none"> <li>▪ Collector, with tachometric generator (Universal)</li> </ul>
<b>Spin speed</b>	<ul style="list-style-type: none"> <li>▪ 800÷1,600 rpm</li> </ul>
<b>Anti-unbalancing system</b>	<ul style="list-style-type: none"> <li>▪ AGS</li> </ul>
<b>Cold water fill</b>	<ul style="list-style-type: none"> <li>▪ 1 solenoid valve with 1 inlet – 2 outlets</li> </ul>
<b>Detergent dispenser</b>	<ul style="list-style-type: none"> <li>▪ 2 compartments: wash, conditioner</li> </ul>
<b>Control of water level in the tub</b>	<ul style="list-style-type: none"> <li>▪ Electronic/analogue pressure switch</li> </ul>
<b>Door safety interlock</b>	<ul style="list-style-type: none"> <li>▪ Traditional (with PTC)</li> </ul>
<b>Heating element heat output</b>	<ul style="list-style-type: none"> <li>▪ 1,750 W with thermal fuses incorporated</li> </ul>
<b>Temperature check</b>	<ul style="list-style-type: none"> <li>▪ NTC probe incorporated in the heating element</li> </ul>
<b>Buzzer</b>	<ul style="list-style-type: none"> <li>▪ Traditional incorporated in the PCB</li> </ul>



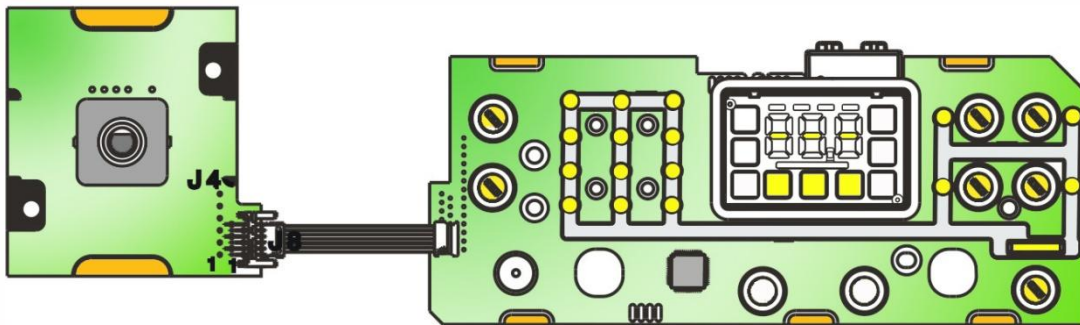
## 3.2 Control panels

### 3.2.1 Styling

- Max. 7 touch push buttons
- 15 position programme selector
- 24 LEDs

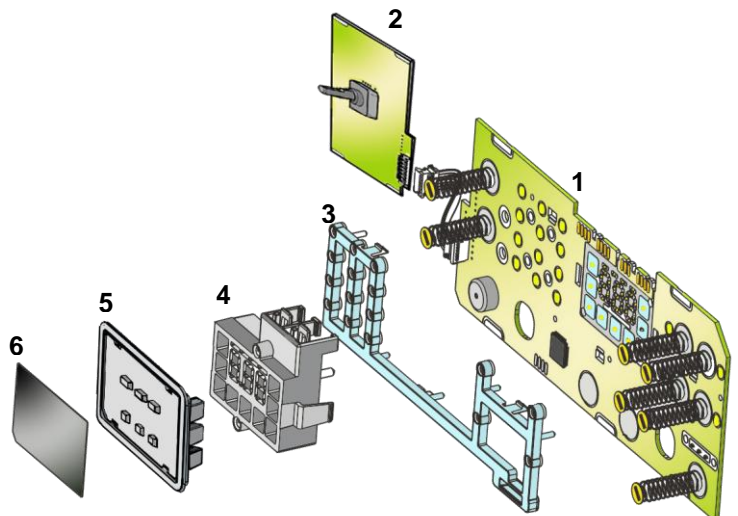


### 3.2.2 Display board



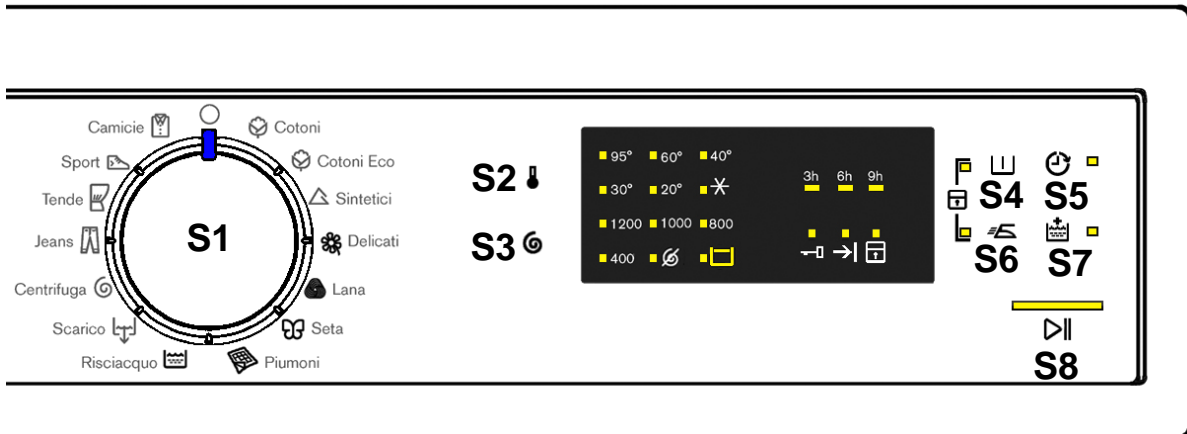
- Display board assembly, exploded view

1. Display board
2. Selector card with knob
3. Light divider
4. Digits light diffuser support
5. Digits light diffuser
6. Digital filter





### 3.2.3 Control panel configuration



The washing programmes, the functions of the selector knob and the various buttons vary according to the model, since these are determined by the configuration of the appliance.

#### 3.2.3.1 Programme selector (S1)

See para. 3.2.3.1 pag. 9

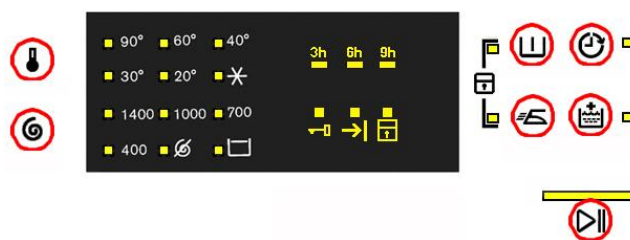
#### 3.2.3.2 Programme configuration

See para. 3.2.3.2 pag. 9

#### 3.2.3.3 Sensor – LEDs and Display

The function of each touch sensor is defined via the configuration of the appliance (the data and images are for guidance only).

The touch sensors are positioned under the silk-screen printed symbols on the control panel (circled here in red).



A light touch on the centre of the symbol is enough to activate/deactivate the function linked to the sensor with the switching on/off of the relative Led confirming that the enabling/disabling has taken place.

At the same time as the enabling/disabling, the cycle duration time is updated via the digits.

You need to keep your finger pressed down for a longer period of time with the Start/Pause sensor to confirm both the cycle's start and pause, in order to avoid unwanted starts or accidental pauses.

Every time you touch a sensor, you need to lift your finger up by a centimetre and half a second needs to elapse before touching it again, otherwise the electronic system does not recognise that the sensor has been touched for a second time.

The sensors used for adjusting the: Temperature, Spin and delayed Start have a continued variation of values as long as your finger is in contact with the sensor.

↩ **Sensor no. 2:** TEMPERATURE (configurable)

See para. 3.2.3.3 pag. 10

↩ **Sensor no. 3:** SPIN SPEED (configurable)

See para. 3.2.3.3 pag. 11

↩ **Sensor no. 4-5-6-7** (configurable)

See para. 3.2.3.3 pag. 11

↩ **Sensor no. 8**

The function of this sensor is to START/PAUSE.

Touching this sensor starts a washing cycle, or can pause a washing cycle already under way (there are two LEDs inside:

→ A **yellow** one which flashes when the appliance is in set-up, pause; it stays on when the cycle is under way and turns off when the cycle has ended.

→ A **red** one that flashes (150 ms off, 150 ms on) in the event of an alarm or incorrect selection, such as: an incompatible option, an incorrect temperature for the chosen programme or the rotation of the programme selector dial or the selection of an option while a washing cycle is under way.



## Display

The display is made with a black film (with transparent symbols), positioned above the yellow LEDs that allow light to filter through when they are activated with the display of the selected option symbol.



The display shows the following information.

↩ - **End of the programme**

The symbol lights up when the washing cycle ends and you can open the door.

↩ - **Delayed start**

During the selection phase with the relative sensor, you can choose three possible delayed starts:

**3 hrs – 6 hrs – 9 hrs**

After start up the LEDs only stay on for the time period dedicated to them:

LED **3 hrs** stays on for the last 3 hrs, before the washing cycle starts

LED **6 hrs** stays on for the period between 6 hrs and 3 hrs

LED **9 hrs** stays on for the period between 9 hrs and 6 hrs



↩ - **Padlock:**

See para. 3.2.3.3 pag. 12



↩ - **Door closed**

See para. 3.2.3.3 pag. 13



3.2.3.4 Buzzer

See para. 3.2.3.4 page 14

## 4 COMPATIBILITY BETWEEN WASH PROGRAMMES AND OPTIONS

		Rinse hold	Night cycle	Pre-wash/Soak (*)	Stains	Super rinse	Easy-iron	Economy	TM 8 (Intensive)	TM 6 (Daily)	TM 4 (Quick)	TM 2	Aquasol	Max steam	Medium steam	Minimum steam	
<b>Compatibility with OPTIONS</b>	Rinse hold			X	X	X	X	X	X	X	X	X	X	X	X	X	
	Night cycle			X	X	X		X	X	X	X	X	X	X	X	X	
	Pre-wash/Soak (*)	X	X		X	X	X	X	X	X	X	X	X	X	X	X	
	Stains	X	X	X		X	X	X	X	X	X	X	X	X	X	X	
	Super rinse	X	X	X	X		X	X	X	X	X	X	X	X	X	X	
	Easy-iron	X		X	X	X		X	X	X	X	X	X	X	X	X	
	Economy	X	X	X	X	X	X		X					X	X	X	
	TM 8 (Intensive)	X	X	X	X	X	X	X						X	X	X	X
	TM 6 (Daily)	X	X	X	X	X	X							X	X	X	X
	TM 4 (Quick)	X	X	X	X	X	X							X	X	X	X
	TM 2	X	X	X	X	X	X							X	X	X	X
	Aquasol	X	X	X	X	X	X	X	X	X	X	X	X				
	Max steam	X	X	X	X	X	X	X	X	X	X	X	X				
	Medium steam	X	X	X	X	X	X	X	X	X	X	X	X				
Minimum steam	X	X	X	X	X	X	X	X	X	X	X	X					
<b>Phases where selection/ modification is possible</b>	Selection	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	Pre-wash	X	X			X	X						X	X	X	X	
	Wash	X	X			X	X						X	X	X	X	
	Rinses	X															
	Spin																

(\*) Pre-wash and Soak exclude each other.

Pre-wash+Stains and Soak+Stains are compatible with one another depending on the detergent dispenser used.

- The delayed start is compatible with all programmes except for Drain; the maximum time selectable is 20 hours.
- The selection of the spin cycle is available for all programmes, except for Drain/Soak/Extra Silent.

## 4.1 Description of options

- **Rinse hold**

- During the cycle the intermediate rinses and spins are performed.
- Stops the appliance with water in the tub before the final spin cycle.
- To drain the water, simply touch the START/PAUSE sensor to run the drain and spin cycles.

- **Night cycle**



- Eliminates all spin phases and adds **three** rinses in COTTON cycles and **two** rinses in SYNTHETIC FABRICS cycles.
- Stops the appliance with water in the tub before the final spin cycle.
- Eliminates the buzzer (if configured).
- To drain the water, reset the programme and then select a drain or spin cycle.

- **Pre-wash**

- Adds a pre-wash phase at the start of the cycle with water heating to 30°C (or cold, if selected).
- In COTTON and SYNTHETICS cycles, performs a short spin before passing on to the washing phase.
- This option cannot be selected for WOOL and HAND WASH cycles.

- **Super rinse**

- Adds **two** rinses to the COTTON cycles, adds **one** rinse to the SYNTHETIC FABRICS – DELICATES cycles.
- Eliminates the spin at the end of washing.

COMBINATION OF SENSORS FOR THE EXTRA RINSE ACTIVATION /DEACTIVATION	
The appliances that include the SUPER RINSE option combined with a sensor, can even activate /deactivate later cycles with a combination of sensors.	
TC4	TC5
	
During the selection stage, to activate: simultaneously touch the two sensors for a few seconds, as shown in the figure until the relative LED comes on. To deactivate it, touch the same combination until the LED turns off.	

- **No spin**

- Eliminates all the spin phases.
- It adds three rinses to the COTTON CYCLE and one to the SYNTHETIC FABRICS cycle.

- **Easy-iron**

- In COTTON programmes:
  - adds **three** rinses
  - eliminates intermediate spin cycles
  - performs a pulse spin phase before the final spin
  - adds an “untangling” phase after the spin cycle
- In SYNTHETIC FABRICS programmes:
  - it reduces the heating temperature in 50/60 cycles to 40°C,
  - increases the wash time
  - prolongs the cooling phase at the end of the wash phase
  - adds **one** rinse
  - adds an “untangling” phase after the pulse spin cycle
- It limits spin speed to 1,000 rpm if the appliance can reach a higher speed.

- **Economy/Energy label**

- Modifies the structure of the COTTON 40÷90 – SYNTHETIC FABRICS 50/60 programmes to reduce energy consumption, guaranteeing washing performance levels.
- Reduces the washing temperature.
- Increases the duration of the wash phase.

- **Super quick**

Can only be started with the T5 styling where there is no Time manager (corresponding with the second level of Time manager).

- Modifies the structure of the wash phase of the COTTON – SYNTHETIC FABRICS – DELICATES cycles by half a load.

- **Delayed Start**

- Adds a pause before the start of the programme. The delay time is displayed on the corresponding LEDs or on the Display (see page 12 or page 19 to respectively view with Display or LEDs).
- To start the cycle immediately after the countdown to the delayed start has already begun: press the Start/Pause sensor, cancel the delay time by touching the relevant sensor, then press the Start/Pause sensor again.

## 5 DEMO MODE SETTING


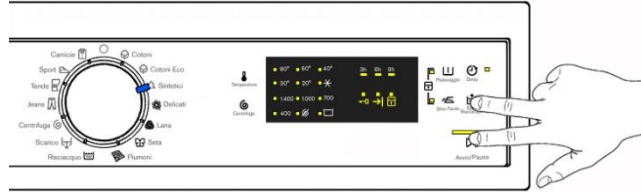
A special cycle allows demonstration of the operation of these appliances in shops, in a user interactive manner, without connecting them to the water mains:

- ◆ Interactive mode consists of selecting one of the programmes, adding any options and, after touching the START/PAUSE sensor, the appliance will only perform some of the programme phases, skipping those that cannot be performed (water fill, drain, heating).

The cycle takes place as follows:

- ↪ The door lock is enabled as usual (door locked during operation, possibility of opening it at the end of the cycle or when paused).
- ↪ Motor: all low speed movements are enabled, the pulses and spin are disabled.
- ↪ The water fill solenoid valves and the drain pump are disabled.
- ↪ Display: shows all the phases of the programme very quickly.
- ↪ Alarms: for safety reasons, the families of alarms E40 (door closed), E50 (motor) and E90 (communication between boards/configuration) are enabled.

The operations listed below must be carried out within 7 seconds.

TC4	TC5
	
<ol style="list-style-type: none"> <li>1. Set the selector dial to position 0 (zero).</li> <li>2. Turn the <b>three position switch clockwise</b>.</li> <li>3. Touch the <b>START/PAUSE</b> and the nearest <b>option sensor</b> simultaneously (as shown in the figure).</li> <li>4. Keep your finger above the sensors until the flashing wording “DEM” appears on the screen.</li> </ol>	<ol style="list-style-type: none"> <li>1. Set the selector dial to position 0 (zero).</li> <li>2. Turn the <b>three position switch clockwise</b>.</li> <li>3. Touch the <b>START/PAUSE</b> and the nearest <b>option sensor</b> simultaneously (as shown in the figure).</li> <li>4. Keep your finger above the sensors until the LEDs start flashing with the exception of the Start/Pause LED.</li> </ol>


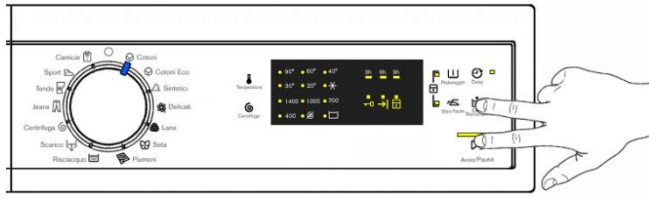
### 5.1 Exiting DEMO mode

Unplug the appliance from the mains socket.

## 6 DIAGNOSTICS SYSTEM

### 6.1 Accessing diagnostics

The operations listed below must be carried out within 7 seconds.

TC4	TC5
	
<ol style="list-style-type: none"><li>1. Set the selector dial to position 0 (zero).</li><li>2. Rotate the programme selector by <b>one position clockwise</b>.</li><li>3. Touch the <b>START/PAUSE</b> and the nearest <b>option sensor</b> simultaneously (as shown in the figure).</li><li>4. Keep your fingers above the sensors until the LEDs and display symbols start flashing.</li></ol> <p>In the first position, the operation of the buttons and the related LEDs is checked; turn the programme selector dial <b>clockwise</b> to run the diagnostic cycle for the operation of the various components and to read any alarms.</p>	

### 6.2 Quitting the diagnostics system

→ To quit the diagnostics system, turn the selector dial to position 0, turn the appliance back on and return the dial to position 0.

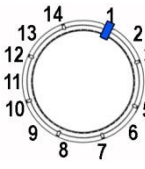

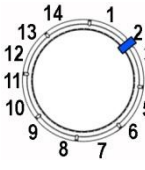

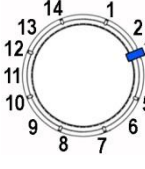

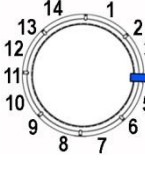

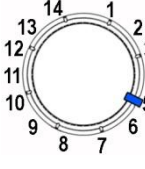

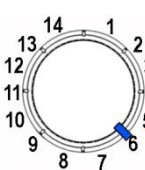

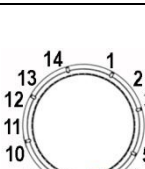



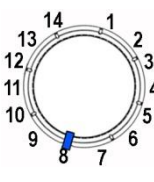

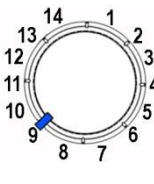

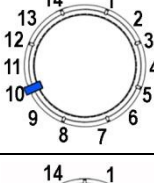

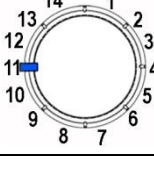

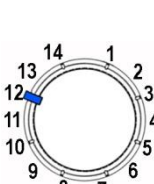

### 6.3 Phases of the diagnostics test

Irrespective of the type of electronic board and of the selector configuration, once the diagnostics system has been activated, turn the selector knob **clockwise** and you can run a check on the various components and the alarm reading.

Simultaneously, a selector control code is shown using the display screen for **two** seconds, before displaying what is described in the last column of the table below.

(All alarms are enabled in the diagnostic cycle.)

Selector position	Components activated	Working conditions	Function tested	LCD display
1 	<ul style="list-style-type: none"> <li>They following come on in sequence: the LEDs, in groups the display symbols and the background light that light it up</li> <li>Touch a sensor to turn on the group of display icons or the corresponding LED and the buzzer sounds at the same time</li> </ul>	Always active	User interface functioning	
2 	<ul style="list-style-type: none"> <li>Door safety interlock</li> <li>Wash solenoid valve</li> </ul>	<ul style="list-style-type: none"> <li>Door closed</li> <li>Water level below anti-flooding level</li> <li>Maximum time 5 min.</li> </ul>	Water fill to wash compartment	 Water level in the tub (mm)
3 	<ul style="list-style-type: none"> <li>Door safety interlock</li> <li>Pre-wash solenoid valve</li> </ul>	<ul style="list-style-type: none"> <li>Door closed</li> <li>Water level below anti-flooding level</li> <li>Maximum time 5 min.</li> </ul>	Water fill to pre-wash compartment	 Water level in the tub (mm)
4 	<ul style="list-style-type: none"> <li>Door safety interlock</li> <li>Solenoid valve pre-wash and wash</li> </ul>	<ul style="list-style-type: none"> <li>Door closed</li> <li>Water level below anti-flooding level</li> <li>Maximum time 5 min.</li> </ul>	Water fill to conditioner compartment	 Water level in the tub (mm)
5 	<ul style="list-style-type: none"> <li>Door safety interlock</li> <li>Third solenoid valve (where featured)</li> </ul>	<ul style="list-style-type: none"> <li>Door closed</li> <li>Water level below anti-flooding level</li> <li>Maximum time 5 min.</li> </ul>	Water fill to third solenoid valve compartment	 Water level in the tub is displayed (mm)
6 	<ul style="list-style-type: none"> <li>Door safety interlock</li> <li>Fourth solenoid valve (hot water where featured)</li> </ul>	<ul style="list-style-type: none"> <li>Door closed</li> <li>Water level below anti-flooding level</li> <li>Maximum time 5 min.</li> </ul>	Water fill to fourth solenoid valve compartment	 Water level in the tub is displayed (mm)
7 	<ul style="list-style-type: none"> <li>Door safety interlock</li> <li>Wash solenoid valve, if the water in the tub is not enough to cover the heating element</li> <li>Heating element</li> <li>Weight sensor (if there is one, an extra litre of water is loaded)</li> <li>Circulation pump</li> </ul>	<ul style="list-style-type: none"> <li>Door closed</li> <li>Water level above the heating element</li> <li>Maximum time 10 min. or up to 90°C (*)</li> </ul>	Reheating Circulation	 Temperature in °C measured using the NTC probe

8		<ul style="list-style-type: none"> <li>- Door safety interlock</li> <li>- Wash solenoid valve, if the water in the tub is not enough to cover the heating element</li> <li>- Motor (55 rpm clockwise, 55 rpm anti-clockwise, 250 rpm pulse)</li> </ul>	<p>Door closed Water level above the heating element</p>	<p>Check for leaks from the tub</p>	 <p>Drum speed in rpm/10</p>
9		<ul style="list-style-type: none"> <li>- Door safety interlock</li> <li>- Drain pump</li> <li>- Motor up to 650 rpm then at maximum spin speed (**)</li> </ul>	<p>Door closed Water level lower than anti-boiling level for spinning</p>	<p>Drain, calibration of analogue pressure switch and spin</p>	 <p>Drum speed in rpm/10</p>
10		<ul style="list-style-type: none"> <li>- Drum rotation motor</li> <li>- Door fastening device</li> <li>- Drum position sensor DSP</li> </ul>	<p>Door closed</p>	<p>Check the correct position of the drum via DSP</p>	
11		<ul style="list-style-type: none"> <li>- Reading/deleting the last alarm</li> </ul>	<p>-----</p>	<p>----</p>	
12 ÷ 14		<ul style="list-style-type: none"> <li>- The LEDs, groups of symbols in the LCD screen and the backlight of the display are turned on in sequence</li> <li>- Touch a sensor to turn on the group of icons in the LCD screen or the corresponding LED and the buzzer sounds at the same time</li> </ul>	<p>Always active</p>	<p>User interface functioning</p>	

(\*) In most cases, the established time is sufficient to check the heating. However, the time can be increased by repeating the phase without draining the water: pass for a moment to a different phase of the diagnostic cycle and then back to the heating control phase (if the temperature is higher than 80°C, heating does not take place).

(\*\*) The check at the maximum speed occurs without control of the AGS (anti-unbalancing system) and no garments must be inside the appliance.

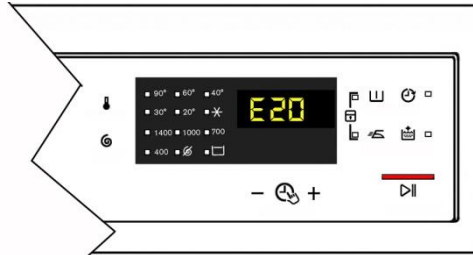
## 7 ALARMS

### 7.1 Displaying user alarms

#### 7.1.1 Styling TC4

When a problem arises with the appliance generating a “WARNING” or “ALARM” this is shown in three digits (where the remaining time for the cycle to finish is shown) and simultaneously by the yellow sensor LED flashing STOP/PAUSE and the alarm (even if the user has deactivated it) gives off three short beeps every twenty seconds for five minutes.

Once the problem has been resolved, the alarm stops ringing and the code shown disappears.



**The alarms displayed to the user are listed below and can be eliminated by the user:**

- ↪ E10 – Water fill difficulty (tap closed)
- ↪ E20 – Drain difficulty (filter dirty)
- ↪ E40 – Door open
- ↪ EF0 – If created by an overdose of detergent (if configured)

#### 7.1.2 Styling TC5

The alarms are displayed by the flashing red LED of the START/PAUSE sensor and by one of the three LEDs in the lower right hand corner of the display.

As soon as a problem arises these LEDs start flashing (half a second on and half a second off), until the problem is resolved.

**The table below illustrates the combinations of LED lightings.**

	E10		E20		E40
Water fill difficulty (tap closed)		Drain difficulty (filter fouled)		Door open	

**While the alarms listed below:**

- ↪ EF0 – If generated by water leaks inside the appliance (Aqua Control System)

**The intervention of a service engineer is required to resolve this.**

**For the alarm on the other hand:**

- ↪ EH0 – Voltage or frequency outside normal values

It is necessary to wait for power supply voltage and/or frequency to restore normal conditions.

**The alarms are enabled during the execution of the washing programme. With the exception of alarms associated with the configuration and the power supply voltage/frequency, which are also displayed during the programme selection phase.**

The door can normally be opened (except where specified) when an alarm condition has occurred, on condition that:

- The water in the tub is below a certain level.
- The water temperature is lower than 55°C.
- The motor has stopped.

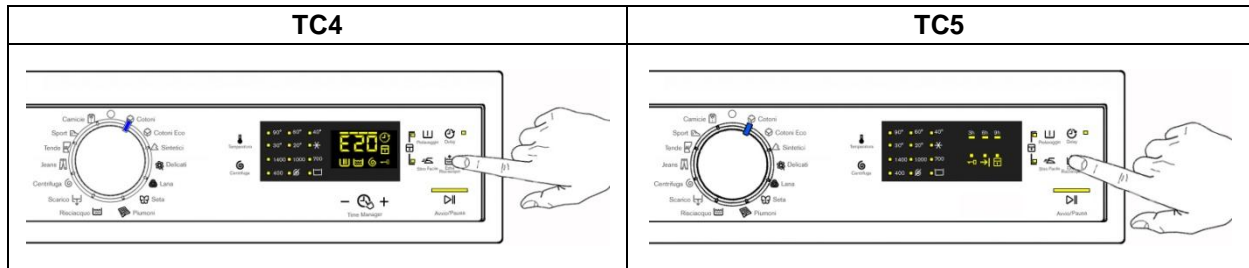
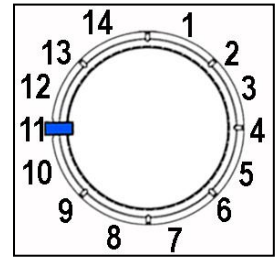
Certain alarm conditions require a drain phase to be performed before the door can be opened for safety reasons:

- Cooling water fill if the temperature is higher than 65°C.
- Drain until the analogue pressure switch is on “empty”, within a max. time of 3 minutes.

## 7.2 Reading the alarms

The last three alarms stored in the FLASH memory of the PCB can be displayed:

- Enter the diagnostic mode (para. 7.1 page 25).
- Irrespective of the type of circuit board and configuration, turn the programme selector knob **clockwise** to the **eleventh position** and the last alarm is displayed.
- In order to view previous alarms, sequentially touch the sensor (as shown in the diagram below).
- To return to the last alarm, touch the START/PAUSE sensor.



### 7.2.1 Viewing the TC5 styling alarm

The alarm is displayed by a repeated flashing sequence of the START/PAUSE sensor red and yellow lights (0.5 seconds on, 0.5 seconds off with a 2.5 second pause between sequences).

- START/PAUSE sensor indicator with red light → indicates the first digit of the alarm code (family)
- START/PAUSE sensor indicator with yellow light → indicates the second digit of the alarm code (number inside the family)

These two LEDs are present in all models.



#### Notes:

- The first letter of the alarm code “E” (Error) is not displayed, since this letter is common to all alarm codes.
- Alarm code families are expressed in hexadecimals; and therefore the letters:
  - **A** is represented by **10** flashes
  - **B** is represented by **11** flashes
  - ...
  - **F** is represented by **15** flashes
- Configuration errors are displayed by all LEDs flashing (user interface not configured).

### 7.2.2 Example of alarm display

If we take alarm E43 (problem with the door safety TRIAC) as an example; the following will be displayed:

- A sequence of four flashes of the START/PAUSE sensor red light indicates the first number **E43**.
- The sequence of three flashes of the START/PAUSE sensor with the yellow light indicates the second number **E43**.

START/PAUSE sensor with red light			START/PAUSE sensor with green light		
ON/OFF	Time (Sec.)	Value	ON/OFF	Time (Sec.)	Value
	0.5	1		0.5	1
	0.5			0.5	
	0.5	2		0.5	2
	0.5			0.5	
	0.5	3		0.5	<b>3</b>
	0.5			0.5	
	0.5	<b>4</b>		2.5	Pause
	0.5				
	1.5	Pause			

### 7.2.3 Behaviour of the alarms during diagnostic testing

All alarms are enabled during diagnostic testing of the components.

## 7.3 Rapid reading of alarms

It is possible to display the last alarm even if the selector is not in the eleventh diagnostics position or if the appliance is in normal operating mode (for example when performing a wash programme):

→ 10 seconds after turning on the appliance, simultaneously touch the **START/PAUSE** sensor and the nearest **sensor option** (as if accessing DIAGNOSTICS) for at least 2 seconds:

In the TC4 styling, the display shows the last alarm.

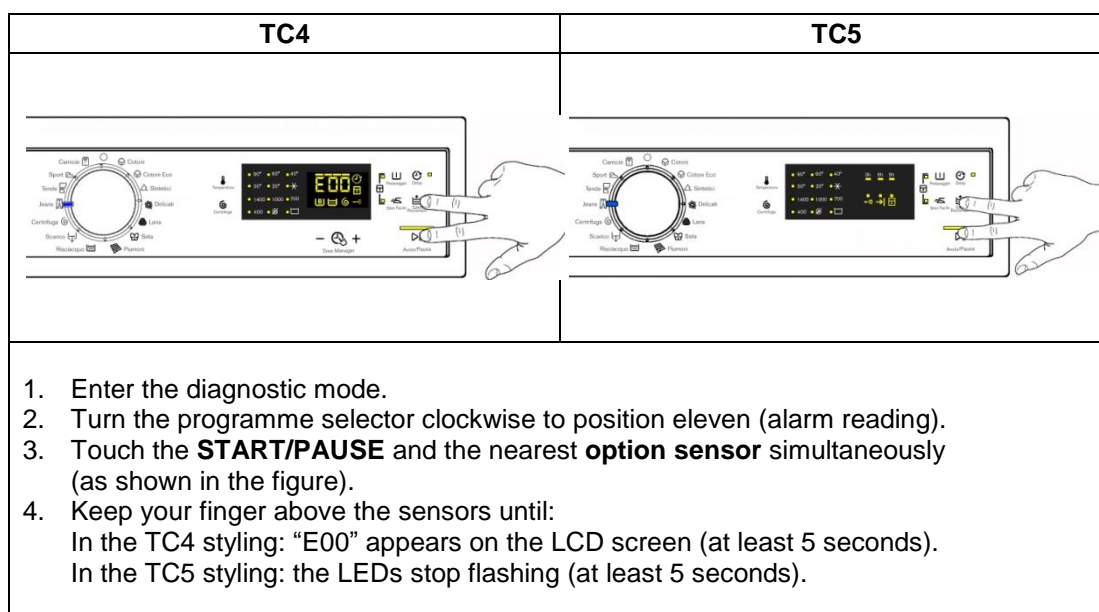
In the TC5 styling, the LEDs initially switch off, and then display the flashing sequence indicating the last alarm.

- The alarm continues to be displayed for the required time and then returns to its normal function or until a sensor is touched.
- The alarm reading system is as described in para. 8.2.
- While the alarm is being displayed, the appliance continues to perform the cycle or, if in the programme selection phase, it stores the previously selected options.

## 7.4 Deleting the last alarm

It is good practice to cancel the alarms stored:

- after reading the alarm codes, to check whether the alarm re-occurs during the diagnostic cycle
- after repairing the appliance, to check whether it re-occurs during testing



N.B. With this operation all the alarms stored are deleted.

## 8 ALARM SUMMARY TABLE

ALARM CODE	Description	Possible fault	Machine status/action	Reset
E11	Water fill difficulty during washing	<ul style="list-style-type: none"> <li>▪ Tap closed.</li> <li>▪ Water pressure too low.</li> <li>▪ Drain pipe improperly positioned.</li> <li>▪ Water fill solenoid valve faulty.</li> <li>▪ Leaks from pressure switch water circuit.</li> <li>▪ Pressure switch faulty.</li> <li>▪ Faulty wiring.</li> <li>▪ Main circuit board faulty.</li> </ul>	Cycle is paused with door locked	START/RESET
E13	Water leaks	<ul style="list-style-type: none"> <li>▪ Drain pipe improperly positioned.</li> <li>▪ Water pressure too low.</li> <li>▪ Water fill solenoid valve faulty.</li> <li>▪ Leaks/clogging of pressure switch water circuit.</li> <li>▪ Pressure switch faulty.</li> </ul>	Cycle is paused with door locked	START/RESET
E21	Drain difficulty during washing	<ul style="list-style-type: none"> <li>▪ Drain tube kinked/clogged/improperly positioned.</li> <li>▪ Drain filter clogged/dirty.</li> <li>▪ Faulty wiring.</li> <li>▪ Pressure switch faulty.</li> <li>▪ Drain pump rotor blocked.</li> <li>▪ Drain pump faulty.</li> <li>▪ Main circuit board faulty.</li> </ul>	Cycle is paused (after 2 attempts)	START ON/OFF RESET
E23	Faulty TRIAC for drain pump	<ul style="list-style-type: none"> <li>▪ Faulty wiring.</li> <li>▪ Drain pump faulty.</li> <li>▪ Main circuit board faulty.</li> </ul>	Safety drain cycle – Cycle stops with door open	RESET
E24	Drain pump TRIAC “sensing” circuit faulty	<ul style="list-style-type: none"> <li>▪ Main circuit board faulty.</li> </ul>	Safety drain cycle – Cycle stops with door unlocked	RESET

ALARM CODE	Description	Possible fault	Action Machine status	Reset
E31	Malfunction in electronic pressure switch circuit	<ul style="list-style-type: none"> <li>▪ Wiring; Electronic pressure switch.</li> <li>▪ Main electronic circuit board.</li> </ul>	Cycle stops with door locked	RESET
E32	Calibration error of the electronic pressure switch	<ul style="list-style-type: none"> <li>▪ Drain tube kinked/clogged/improperly positioned.</li> <li>▪ Solenoid valve faulty.</li> <li>▪ Drain filter clogged/dirty.</li> <li>▪ Drain pump faulty.</li> <li>▪ Leaks from pressure switch water circuit.</li> <li>▪ Pressure switch defective.</li> <li>▪ Wiring; main circuit board.</li> </ul>	Cycle is paused	START/RESET
E35	Overflow	<ul style="list-style-type: none"> <li>▪ Water fill solenoid valve faulty.</li> <li>▪ Leaks from pressure switch water circuit.</li> <li>▪ Faulty wiring.</li> <li>▪ Pressure switch faulty.</li> <li>▪ Main circuit board faulty.</li> </ul>	Cycle interrupted Safety drain cycle Drain pump continues to operate (5 mins. on, then 5 mins. off, and so on)	RESET
E38	Internal pressure chamber is clogged (water level does not change for at least 30 sec. of drum rotation)	<ul style="list-style-type: none"> <li>▪ Motor belt broken.</li> <li>▪ Pressure switch hydraulic circuit clogged.</li> </ul>	Heating phase is skipped	RESET



ALARM CODE	Description	Possible fault	Action Machine status	Reset
E41	Door open	<ul style="list-style-type: none"> <li>▪ Check whether the door is closed properly.</li> <li>▪ Faulty wiring.</li> <li>▪ Door safety interlock faulty.</li> <li>▪ Main circuit board faulty.</li> </ul>	Cycle is paused	CLOSE THE DOOR
E42	Problems with door lock	<ul style="list-style-type: none"> <li>▪ Faulty wiring.</li> <li>▪ Door safety interlock faulty.</li> <li>▪ Electrical current leak between heating element and ground.</li> <li>▪ Main circuit board faulty.</li> </ul>	Cycle is paused	START/RESET
E43	Faulty TRIAC supplying power to door delay system	<ul style="list-style-type: none"> <li>▪ Faulty wiring.</li> <li>▪ Door safety interlock faulty.</li> <li>▪ Main circuit board faulty.</li> </ul>	Safety drain cycle Cycle blocked	RESET
E44	Faulty "sensing" of door delay system	<ul style="list-style-type: none"> <li>▪ Main circuit board faulty.</li> </ul>	Safety drain cycle Cycle blocked	RESET
E45	Faulty sensing by door delay system TRIAC	<ul style="list-style-type: none"> <li>▪ Main circuit board faulty.</li> </ul>	Safety drain cycle Cycle blocked	RESET

ALARM CODE	Description	Possible fault	Action Machine status	Reset
E51	Motor power TRIAC short-circuited	<ul style="list-style-type: none"> <li>▪ Current leakage from motor or wiring.</li> <li>▪ Main PCB faulty.</li> </ul>	Cycle stops with door open (after 5 attempts)	ON/OFF
E52	No signal from motor tachometric generator	<ul style="list-style-type: none"> <li>▪ Faulty wiring.</li> <li>▪ Motor faulty.</li> <li>▪ Inverter board faulty.</li> </ul>	Cycle blocked with door locked after 5 attempts	ON/OFF RESET
E53	“Sensing” faulty TRIAC motor	<ul style="list-style-type: none"> <li>▪ Main circuit board faulty.</li> </ul>	Cycle blocked	RESET
E54	Motor relay contacts sticking	<ul style="list-style-type: none"> <li>▪ Current leakage from motor or wiring.</li> <li>▪ Main PCB faulty.</li> </ul>	Cycle stops with door open (after 5 attempts)	RESET

ALARM CODE	Description	Possible fault	Action Machine status	Reset
E61	Insufficient heating during the washing phase	<ul style="list-style-type: none"> <li>▪ Faulty wiring.</li> <li>▪ NTC probe for wash cycle faulty.</li> <li>▪ Heating element faulty.</li> <li>▪ Main circuit board faulty.</li> </ul>	The heating phase is skipped	START/RESET
E62	Overheating during washing phase (temperature higher than 88°C for more than 5 min.)	<ul style="list-style-type: none"> <li>▪ Faulty wiring.</li> <li>▪ NTC probe for wash cycle faulty.</li> <li>▪ Heating element faulty.</li> <li>▪ Main circuit board faulty.</li> </ul>	Safety drain cycle Cycle stops with door open	RESET
E66	Heating element power relay faulty (inconsistency between sensing and relay status)	<ul style="list-style-type: none"> <li>▪ Main circuit board faulty.</li> </ul>	Safety water fill Cycle stops with door closed	ON/OFF RESET
E68	Current leak to the ground	<ul style="list-style-type: none"> <li>▪ Current leakage between heating element and ground.</li> </ul>	The heating phase is skipped	START/RESET
E69	Heating element interrupted	<ul style="list-style-type: none"> <li>▪ Faulty wiring.</li> <li>▪ Heating element for washing interrupted (thermal fuse open).</li> <li>▪ Main circuit board faulty.</li> </ul>	-----	START ON/OFF RESET
E6A	Heating relay sensing faulty	<ul style="list-style-type: none"> <li>▪ Main circuit board faulty.</li> </ul>	Cycle stops with door locked	RESET
E6H	Heating element power relay faulty (inconsistency between sensing and relay status)	<ul style="list-style-type: none"> <li>▪ Faulty wiring.</li> <li>▪ Current leakage between heating element and ground.</li> <li>▪ Main circuit board faulty.</li> </ul>	Safety water fill Cycle stops with door closed	ON/OFF RESET

ALARM CODE	Description	Possible fault	Action Machine status	Reset
E71	NTC probe for wash cycle faulty (short-circuited or open)	<ul style="list-style-type: none"> <li>▪ Faulty wiring.</li> <li>▪ NTC probe for wash cycle faulty.</li> <li>▪ Main circuit board faulty.</li> </ul>	The heating phase is skipped	START/RESET
E74	NTC probe for wash cycle improperly positioned	<ul style="list-style-type: none"> <li>▪ Faulty wiring.</li> <li>▪ NTC probe for wash cycle improperly positioned.</li> <li>▪ NTC probe faulty.</li> <li>▪ Main circuit board faulty.</li> </ul>	The heating phase is skipped	RESET
E83	Error in reading selector	<ul style="list-style-type: none"> <li>▪ Main circuit board faulty.</li> <li>▪ Incorrect configuration data.</li> </ul>	Cycle cancelled	START/RESET
E86	Selector configuration error	<ul style="list-style-type: none"> <li>▪ Incorrect configuration of display board.</li> </ul>	-----	START ON/OFF RESET
E87	Display board microprocessor faulty	<ul style="list-style-type: none"> <li>▪ If this continues, replace the display board.</li> </ul>	No action to be taken	START ON/OFF RESET
E91	Communication error between main PCB and display board	<ul style="list-style-type: none"> <li>▪ Faulty wiring.</li> <li>▪ Control/display circuit board faulty.</li> <li>▪ Main circuit board faulty.</li> </ul>	-----	RESET
E92	Communication inconsistency between main PCB and display board (incompatible versions)	<ul style="list-style-type: none"> <li>▪ Incorrect control/display board.</li> <li>▪ Incorrect PCB (does not correspond to the model).</li> </ul>	Cycle blocked	ON/OFF
E93	Appliance configuration error	<ul style="list-style-type: none"> <li>▪ Main circuit board faulty.</li> <li>▪ Incorrect configuration data.</li> </ul>	Cycle blocked	ON/OFF
E94	Incorrect configuration of washing cycle	<ul style="list-style-type: none"> <li>▪ Main circuit board faulty.</li> <li>▪ Incorrect configuration data.</li> </ul>	Cycle blocked	ON/OFF
E97	Inconsistency between programme selector and cycle configuration	<ul style="list-style-type: none"> <li>▪ Main circuit board faulty.</li> <li>▪ Incorrect configuration data.</li> </ul>	Cycle blocked	RESET
E9C	Display board configuration error	<ul style="list-style-type: none"> <li>▪ Display board faulty.</li> </ul>	-----	START ON/OFF RESET
E9E	Display board touch sensor faulty	<ul style="list-style-type: none"> <li>▪ Display board faulty.</li> </ul>	-----	ON/OFF

ALARM CODE	Description	Possible fault	Action Machine status	Reset
EA1	No drum position signal made	<ul style="list-style-type: none"> <li>▪ DSP sensor faulty.</li> <li>▪ Transmission belt broken.</li> <li>▪ Main circuit board faulty.</li> <li>▪ Faulty wiring.</li> </ul>	Drum positioning cycle cancelled	START/RESET
EA6	No signal from the DSP during motor activation	<ul style="list-style-type: none"> <li>▪ DSP sensor faulty.</li> <li>▪ Transmission belt broken.</li> <li>▪ Main circuit board faulty.</li> <li>▪ Faulty wiring.</li> </ul>	Cycle paused	START RESET
EC1	Electronically controlled valve blocked with operating flowmeter	<ul style="list-style-type: none"> <li>▪ Faulty wiring.</li> <li>▪ Solenoid valve faulty/blocked.</li> <li>▪ Circuit board faulty</li> </ul>	Cycle stops with door locked Drain pump continues to operate (5 mins. on, then 5 mins. off, and so on)	RESET
EC3	Problems with weight sensor (no signal or outside the limits)	<ul style="list-style-type: none"> <li>▪ Faulty wiring.</li> <li>▪ Weight sensor faulty.</li> <li>▪ Main board faulty.</li> </ul>	-----	START/RESET
EC4	AGS current sensor faulty	<ul style="list-style-type: none"> <li>▪ Main board faulty.</li> </ul>	Spin speed reduced to safety speed of 150 rpm	
EF1	Drain filter clogged (drain phase too long)	<ul style="list-style-type: none"> <li>▪ Drain filter clogged/dirty.</li> <li>▪ Drain hose blocked/kinked/too high.</li> </ul>	Warning displayed at the end of cycle	START/RESET
EF2	Overdosing of detergent (too much foam during drain phases)	<ul style="list-style-type: none"> <li>▪ Excessive detergent dosing.</li> <li>▪ Drain hose kinked/blocked.</li> <li>▪ Drain filter clogged/dirty.</li> </ul>	Warning displayed after 5 attempts or by the specific LED	RESET
EF3	Aqua control system intervention	<ul style="list-style-type: none"> <li>▪ Water leaks onto base frame.</li> <li>▪ Aqua control device faulty.</li> </ul>	Appliance drains	ON/OFF RESET
EF4	Water fill pressure too low, no signal from flowmeter and electronically controlled valve is open	<ul style="list-style-type: none"> <li>▪ Tap closed.</li> <li>▪ Water fill pressure too low.</li> </ul>	-----	RESET
EF5	Unbalanced load	<ul style="list-style-type: none"> <li>▪ Final spin phases skipped.</li> </ul>	-----	START/RESET
EF6	Reset	<ul style="list-style-type: none"> <li>▪ If it continues, replace the main board.</li> </ul>	-----	-----

<b>ALARM CODE</b>	<b>Description</b>	<b>Possible fault</b>	<b>Action Machine status</b>	<b>Reset</b>
<b>EH1</b>	Appliance power supply frequency out of limits	<ul style="list-style-type: none"> <li>▪ Problem with the power supply network (incorrect/disturbed).</li> <li>▪ Main circuit board faulty.</li> </ul>	Wait for nominal frequency conditions	ON/OFF
<b>EH2</b>	Supply voltage too high	<ul style="list-style-type: none"> <li>▪ Problem with the power supply network (incorrect/disturbed).</li> <li>▪ Main circuit board faulty.</li> </ul>	Wait for nominal voltage conditions	ON/OFF
<b>EH3</b>	Supply voltage too low	<ul style="list-style-type: none"> <li>▪ Problem with the power supply network (incorrect/disturbed).</li> <li>▪ Main circuit board faulty.</li> </ul>	Wait for nominal voltage conditions	ON/OFF

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