

# Under Counter dishwasher



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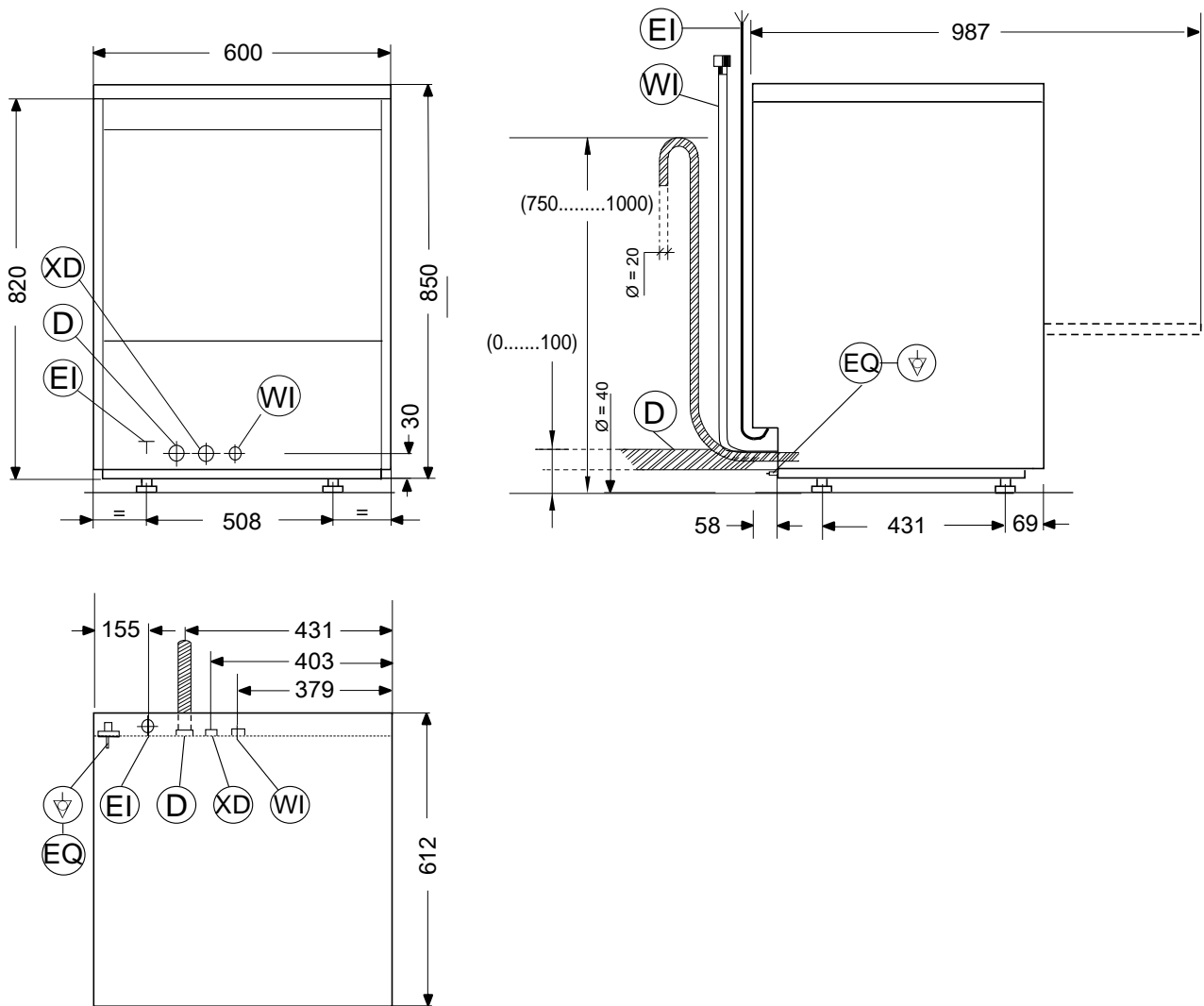
EN Installation manual \*



\*Original instructions

59566V201- 2021.11

# Installation diagram



EI = Power supply entry  
WI = Water Inlet pipe with  $\varnothing = 3/4"$  G fittings  
XD = Inlet pipe for detergents  
EQ = Equipotential screw

D = Drain pipe with internal diameter:  
 $\varnothing = 40$  mm (Only for model with free-fall drainage)  
 $\varnothing = 20$  mm (Only for model with drain pump)


## Foreword

 Read the following instructions, including the warranty terms before installing and using the appliance.

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 Register your product

 Get hints & tips of your product, service and repair information

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The installation, use and maintenance manual (hereinafter Manual) provides the user with information necessary for correct and safe use of the appliance.

The following must not be considered a long and exacting list of warnings, but rather a set of instructions suitable for improving appliance performance in every respect and, above all, preventing injury to persons and animals and damage to property due to improper operating procedures.

All persons involved in appliance transport, installation, commissioning, use and maintenance, repair and disassembly must consult and carefully read this manual before carrying out the various operations, in order to avoid wrong and improper actions that could compromise the appliance's integrity or endanger people. Make sure to periodically inform the user regarding the safety regulations. It is also important to instruct and update personnel authorised to operate on the appliance, regarding its use and maintenance.

The manual must be available to operators and carefully kept in the place where the appliance is used, so that it is always at hand for consultation in case of doubts or whenever required.

If, after reading this manual, there are still doubts regarding appliance use, do not hesitate to contact the Manufacturer or the authorised Service Centre to receive prompt and precise assistance for better operation and maximum efficiency of the appliance. During all stages of appliance use, always respect the current regulations on safety, work hygiene and environmental protection. It is the user's responsibility to make sure the appliance is started and operated only in optimum conditions of safety for people, animals and property.

### **IMPORTANT**

- The manufacturer declines any liability for operations carried out on the appliance without respecting the instructions given in this manual.
- The manufacturer reserves the right to modify the appliances presented in this publication without notice.
- No part of this manual may be reproduced.
- This manual is available in digital format by:
  - contacting the dealer or reference customer care;
  - downloading the latest and up to date manual on the web site;
- The manual must always be kept in an easily accessed place near the appliance. Appliance operators and maintenance personnel must be able to easily find and consult it at any time.

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## A SAFETY INFORMATION

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### A.1 General information

These appliance is intended to be used for commercial applications, for example in kitchens of restaurant, canteens, hospitals. It must be used for washing plates, dishes, glassware, cutlery and similar articles.

To ensure safe use of the machine and a proper understanding of the manual it is necessary to be familiar with the terms and typographical conventions used in the documentation. The following symbols are used in the manual to indicate and identify the various types of hazards:



#### **WARNING**

Danger for the health and safety of operators.



#### **WARNING**

Danger of electrocution - dangerous voltage.



#### **CAUTION**

Risk of damage to the appliance or the product.



#### **IMPORTANT**

Important instructions or information on the product



Equipotentiality



Read the instructions before using the appliance



Clarifications and explanations






### A.2 General safety

- The machine must not be used by people (including children) with limited physical, sensory or mental abilities or without experience and knowledge of it, unless instructed in its use and supervised by those responsible for their safety.
  - Do not let children play with the machine.
  - Keep all packaging and detergents away from children.
  - Cleaning and user maintenance shall not be made by children without supervision.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- For suitable personal protection equipment, refer to chapter “A.3 *Personal protection equipment*”.
- Several illustrations in the manual show the machine, or parts of it, without guards or with guards removed. This is purely for explanatory purposes. Do not install the machine without the guards or with the protection devices deactivated.
- Do not remove, tamper with or make illegible the safety, danger and instruction signs and labels on the machine.

- Do not remove or tamper with the machine's safety devices.
- Before carrying out any machine installation, always consult the installation manual, which gives the correct procedures and contains important information on safety.
- Unauthorized personnel must not enter the work area.
- Remove any flammable products or items from the work area.
- Machine positioning, installation and disassembly must be carried out by the specialised personnel in conformity with the current safety regulations, regarding the equipment used and the operating procedures.

### A.3 Personal protection equipment

Summary table of the Personal Protection Equipment (PPE) to be used during the various stages of the appliance's service life.

Stage	Protective garments 	Safety footwear 	Gloves 	Glasses 	Safety helmet 
Transport	—	●	○	—	○
Handling	●	●	○	—	—
Unpacking	○	●	○	—	—
Installation	○	●	● <sup>1</sup>	—	—
Normal use	●	●	● <sup>2</sup>	○	—
Adjustments	○	●	—	—	—
Routine cleaning	○	●	● <sup>1-3</sup>	○	—
Extraordinary cleaning	○	●	● <sup>1-3</sup>	○	—
Maintenance	○	●	○	—	—
Dismantling	○	●	○	○	—
Scrapping	○	●	○	○	—
<b>Key:</b>					
●	<b>PPE REQUIRED</b>				
○	<b>PPE AVAILABLE OR TO BE USED IF NECESSARY</b>				
—	<b>PPE NOT REQUIRED</b>				

1. During these operations, gloves must be cut-resistant. Failure to use the personal protection equipment by operators, specialized personnel or users can involve exposure to damage to health (depending on the model).

2. During these operations, gloves must be heatproof and suitable for contact with water and the substances used (refer to the safety data sheet of the substances used for the information regarding the required PPE). Failure to use the personal protection equipment by operators, specialised personnel or users can involve exposure to chemical risk and cause possible damage to health (depending on the model).

3. During these operations, gloves must be suitable for contact with chemical substances used (refer to the safety data sheet of the substances used for information regarding the required PPE). Failure to use the personal protection equipment by operators, specialized personnel or users can involve exposure to chemical risk and cause possible damage to health (depending on the model).

#### **A.4 Transport, handling and storage**

- Due to their size, the machines cannot be stacked on top of each other during transport, handling and storage; this eliminates any risks of loads tipping over due to stacking.
- Do not stand under suspended loads during loading or unloading operations. Unauthorized personnel must not enter the work area.
- The weight of the appliance alone is not sufficient to keep it steady.
- For machine lifting and anchoring, do not use movable or weak parts such as: casings, electrical raceways, pneumatic parts, etc.
- Do not push or pull the machine to move it, as it may tip over. Use proper tool to lift the machine.
- Machine transport, handling and storage personnel must be adequately instructed and trained regarding the use of lifting systems and personal protection equipment suitable for the type of operation carried out.

#### **A.5 Installation and assembly**

- Follow the installation instruction supplied with the machine.
- Do not install a damaged machine. Any missing or faulty parts must be replaced with original parts.
- Do not make any modifications to the parts supplied with the machine.
- Disconnect the machine from the power supply before carrying out any installation procedure. Connect the machine to the power supply only at the end of the installation.
- The machine is not suitable for installation outdoors and/or in places exposed to atmospheric agents (rain, direct sunlight, freeze, humid and dusty location, etc.).
- Do not install the machine over 2000 meters above sea level.
- Make sure that the floor where you install the machine is flat, stable, heat resistant and clean.
- If available, make sure to install the accessory to fix the machine to the floor.
- Use a ladder with suitable protection for work on machines with high accessibility.

#### **A.6 Water connection**

- The plumbing connections must be carried out by a specialised personnel.
- The machine is to be connected to the water mains using the new supplied hose-sets. Do not use old hose sets.
- Always use a new set of joints if you remove and re-install the water inlet pipe to the machine.
- Before connection to new pipes, pipes not used for a long time, where repair work has been carried out or new devices fitted (water meters, etc.), let the water flow until it is clean and clear.
- The operating water pressure (minimum and maximum) must be between:
  - 2 bar [200 kPa] and 3 bar [300 kPa] for appliances without rinse pump;
  - 0.5 bar [50 kPa] and 7 bar [700 kPa] for appliances with rinse pump;
- Make sure that there are no visible water leaks during and after the first use of the machine.
- Install an approved dual check valve upstream according to the regulation of the installation country.

#### **A.7 Electrical connection**

- Work on the electrical systems must only be carried out by a specialised personnel.
- Make sure that the electrical information on the rating plate agrees with the power supply.



- Make sure to install the machine in accordance with the safety regulations and local laws of the country where used.
- If the power cable is damaged it must be replaced by the Customer Care Service or in any case by specialised personnel, in order to prevent any risk.
- The machine must be correctly earthed. The manufacturer is not responsible for the consequences of an inadequate earthing system.
- If present, connected the machine to the equipotential protection circuit  $\nabla$ .
- To protect the power supply of the machine against short circuits and/or overloads, install a thermal fuse or a suitable automatic thermal magnetic circuit breaker, ADS (Automatic Disconnection of Supply).
- To protect the power supply of the machine against current leakages, install a high-sensitivity manual reset RCD (Residual Current Device), suitable for overvoltage category III.
- For protection against indirect contacts (depending on the type of supply provided for and connection of earths to the equipotential protection circuit  $\nabla$ ) refer to point 6.3.3 of EN 60204-1 (IEC 60204-1) with the use of protection devices that ensure automatic cut-off of the supply in case of isolation fault in the TN or TT systems or, for IT systems, the use of isolation controllers or differential current protection devices to activate automatic power disconnection (an isolation controller must be provided for indicating a possible first earth fault of a live part, unless a protection device is supplied for switching off the power in case of a such a fault. This device must activate an acoustic and/or visual signal which must continue for the entire duration of the fault). For example: in a TT system, a residual current device with cut-in current (e.g. 30 mA) coordinated with the earthing system of the building where the machine is located must be installed ahead of the supply.
- On all rack type dishwasher, make sure to install an emergency switch at the infeed and outfeed. For all additional modules installed later, move the emergency switch at the ends of the equipment.
- For all the additional modules installed later, make sure that the power cable supply is properly sized.

## **A.8 Machine cleaning and maintenance**

- Refer to “A.3 *Personal protection equipment*” for suitable personal protection equipment.
- Put the machine in safe conditions before starting any maintenance operation. Disconnect the machine from the power supply and carefully unplug the power supply cable, if present.
- Depending on the model and type of electric connection, during maintenance operations, the cable and plug must be kept in a visible position by the operator carrying out the work.
- Do not touch the machine with wet hands or feet or when barefoot.
- Do not remove the safety guards.
- Use a ladder with suitable protection for work on machines with high accessibility.
- Respect the requirements for the various routine and extraordinary maintenance operations. Non compliance with the instructions can create risks for personnel.
- Contact with chemical substances (e.g. detergent, rinse aid, scale remover, etc.) without taking appropriate safety precautions (e.g. personal protection equipment) can involve exposure to chemical risk and possible damage to health. Therefore always refer to the safety cards and labels on the products used.

## **Repair and extraordinary maintenance**

- Repair and extraordinary maintenance have to be carried out by specialised authorised personnel. The manufacturer declines any liability for any failure or damage caused by

the intervention of an unauthorized technician by the Manufacturer and the original manufacturer warranty will be invalidated.

## **A.9 Service**

- Only original spare parts can ensure the safety standards of the appliance.

## **A.10 Disposal of packing**

- Dispose of each packaging items respecting the current regulation in the country of installation.

## **A.11 Machine disposal**

- Work on the electrical equipment must only be carried out by a specialised personnel, with the power supply disconnected.
- Dismantling operations must be carried out by specialised personnel.
- Make the appliance unusable by removing the power cable and any compartment closing devices, to prevent the possibility of someone becoming trapped inside.
- Refer to “A.3 *Personal protection equipment*” for suitable personal protection equipment.
- When scrapping the machine, the “CE” marking, this manual and other documents concerning the appliance must be destroyed.



### **IMPORTANT**

Save these instructions carefully for further consultation by the various operators.

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## **B GENERAL SAFETY INSTRUCTIONS FOR USA MARKET**

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### **B.1 General information**



### **IMPORTANT**

To reduce the risk of fire, electrical shock, or injury when using your dishwasher, please follow these basic precautions including the following.

- Read all instructions before using your dishwasher.
- This Manual does not cover every possible condition and situation that may occur. Use common sense and caution when installing, operating, and maintaining this appliance.
- Do not sit, stand, or lean on the door or racks of a dishwasher.
- Store dishwasher detergent and rinse agents in clearly marked packages with “MSDS” (Material Safety Data Sheets) sheets in a safe place.
- **FOR YOUR SAFETY DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUID IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.**
- Your dishwasher uses hot water to clean and sanitize a variety of wares. Machine surfaces and wares become hot during and immediately following normal operations. Operators should use caution when loading and unloading wares from the machine. Refer to “A.3 *Personal protection equipment*” for suitable personal protection equipment.
- Do not touch the heating element during or immediately after use.
- The installation of this unit must be installed in accordance with local codes, or in the absence of local codes, installed in accordance with the applicable requirements in the National Electrical Code, “NFPA 70”, Canadian Electrical Code (“CEC”), Part I, “CSA C22.1”, and Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, “NFPA 96”.

- BEFORE SERVICING, DISCONNECT THE ELECTRICAL SERVICE AND PLACE A RED TAG AT THE DISCONNECT SWITCH TO INDICATE WORK IS BEING DONE ON THAT CIRCUIT.



**NOTE!**

- Contact your authorized service company to perform maintenance and repairs.
- Using any parts other than genuine factory manufactured parts relieves the manufacturer of all warranty and liability.
- Manufacturer reserves the right to change specifications at any time without notice.



**WARNING**

- The equipment warranty is not valid unless the appliance is installed, started and demonstrated under the supervision of a factory trained installer.
- The unit must be installed by Personnel who are qualified to work with electricity and plumbing. Improper installation can cause injury to personnel and/or damage to the equipment.
- The unit must be installed in accordance with all National Codes governing plumbing, sanitation, safety and good trade practices.

**SAVE THESE INSTRUCTIONS**

**C GENERAL INFORMATION**

**C.1 Introduction**

The drawings and diagrams given in the manual are not in scale. They supplement the written information with an outline, but are not intended to be a detailed representation of the appliance supplied.

The numerical values given on the appliance installation diagrams refer to measurements in millimeters and/or inches.

**C.2 Definitions**

Listed below are the definitions of the main terms used in the manual. It is advisable to read them carefully before use.

Operator	machine installation, adjustment, use, maintenance, cleaning, repair and transport personnel.
Manufacturer	Electrolux Professional SpA or any other service centre authorised by Electrolux Professional SpA.
Operator for normal machine use	an operator who has been informed and trained regarding the tasks and hazards involved in normal machine use.
Customer Care service or specialised technician	an operator instructed/trained by the Manufacturer and who, based on his professional and specific training, experience and knowledge of the accident-prevention regulations, is able to appraise the operations to be carried out on the machine and recognise and prevent any risks. His professionalism covers the mechanical, electrotechnical and electronics fields.
Danger	source of possible injury or harm to health.
Hazardous situation	any situation where an operator is exposed to one or more hazards.
Risk	a combination of probabilities and risks of injury or harm to health in a hazardous situation.

Protection devices	safety measures consisting of the use of specific technical means (guards and safety devices) for protecting operators against risks.
Guard	an element of a machine used in a specific way to provide protection by means of a physical barrier.
Safety device	a device (other than a guard) that eliminates or reduces the risk; it can be used alone or in combination with a guard.
Customer	the person who purchased the machine and/or who manages and uses it (e. g. company, entrepreneur, firm).
Emergency stop device	a group of components intended for the emergency stop function; the device is activated with a single action and prevents or reduces damage to persons/machines/property/animals.
Electrocution	an accidental discharge of electric current on a human body.

**C.3 Machine and Manufacturer's identification data**

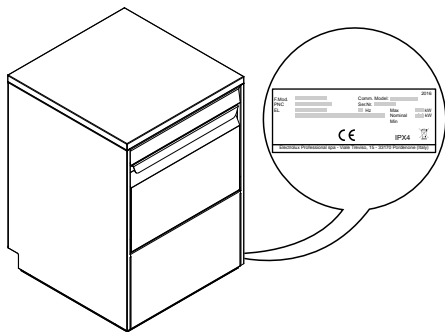
A reproduction of the marking or dataplate on the machine is given below:

F.Mod.	_____	Comm. Model:	_____	2017
PNC	_____	Ser.Nr.	_____	
EL	_____	_____ Hz	Max _____ kW	
Type ref.	_____	Nominal _____ kW	Min _____ kW	
Electrolux Professional spa - Viale Treviso, 15 - 33170 Pordenone (Italy)				

The dataplate gives the product identification and technical data; listed below is the meaning of the various information given on it.

F.Mod.	factory description of product
Comm.Model	commercial description
PNC	production number code
Ser.No.	serial number
400V 3N~	power supply voltage
230V 3~ - 230V 1N~	electric convertibility (depending on the model)
Hz	power supply frequency
Max – kW	max. power
Nominal – kW	nominal power
IPX4	dust and water protection rating
CE	CE marking
Electrolux Professional SpA Viale Treviso 15 33170 Pordenone Italy	manufacturer

The dataplate is located on the right side panel of the equipment.



## WARNING

Do not remove, tamper with or make the machine marking illegible.



## IMPORTANT

When scrapping the machine, the marking must be destroyed.

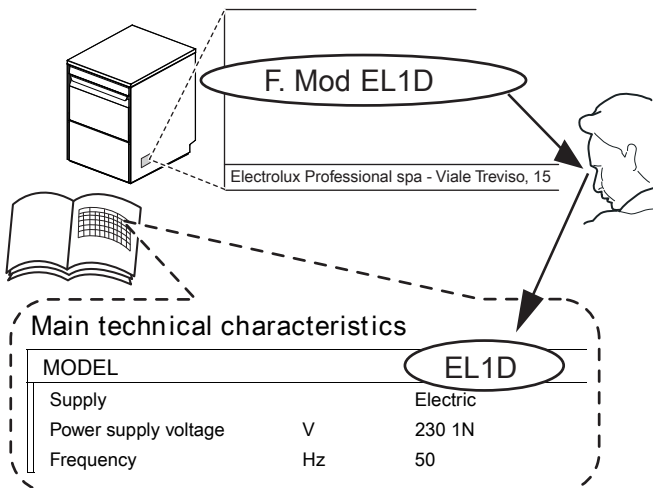


## NOTE!

Refer to the data given on the machine marking for relations with the Manufacturer (e.g. when ordering spare parts, etc.).

### C.4 How to identify the technical data

To identify the technical data, read the factory description of the product (F. Mod.) on the dataplate, identify the main machine data and consult D *TECHNICAL DATA* paragraph.



#### C.4.1 How to interpret the factory description

The factory description on the dataplate has the following meaning (some examples are given below):

(1)	(2)	(3)	(4)	(5)	(6)	(7)
E	L		I	3		
E	L	A	I	1	G	
E	L	A	I	3	W	P
E	UC			A060		
E	UC			A060	WS	

(1) Brand E = Electrolux Professional, Z = Zanussi, V = Veetsan, N = To brand, C = Cater-Wash, X = KlumaierXtunner, ET5 = Ecolab.

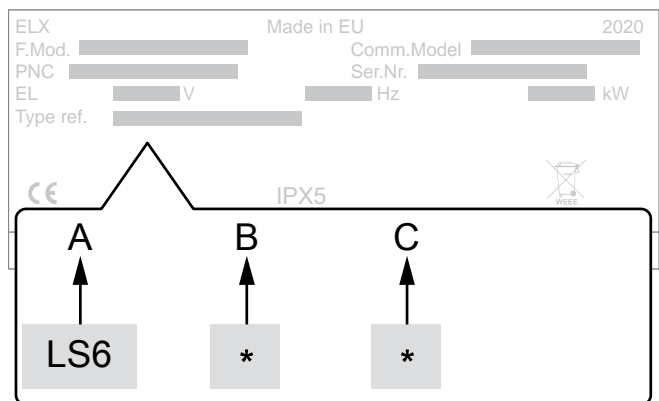
(2) Machine type L = Under counter UC = Under counter

(3) Rinsing system A = Atmospheric Empty = Pressure

(4) Machine type I = Double insulation Empty = Single insulation

(5 - 7) Options  
 1 = Single phase  
 3 = Three phases  
 4 = 240V (North America)  
 8 = 208V (North America)  
 6 = 60 Hz  
 C = Cold rinse or cold water inlet  
 D = Detergent pump installed  
 P = Drain pump installed  
 G = Detergent and drain pumps installed  
 W = Water Softener installed  
 A060 = Compliant with A<sub>0</sub> 60 level according to EN 15883-1 Standard  
 /DD = Drain pump installed  
 WS = Water Softener, drain pump, detergent pump installed  
 MS = Multi rack support  
 OW = On Wheels  
 NR = No rack  
 CL = Cafe Line  
 WL = Wine Line  
 AG = AutoGrill  
 MCD = Mc Donalds  
 PR = Promotion code  
 TL = Thermal Label compliant  
 U = UK plug  
 L = AISI316 Stainless steel boiler installed  
 5M = 400V 3~ 50 Hz Marine  
 6M = 440V 3~ 60 Hz Marine  
 35M = 230V 3~ 50 Hz Marine  
 36M = 230V 3~ 60 Hz Marine  
 USPH5 = 400V 3~ 50 Hz Marine  
 USPH6 = 440V 3~ 60 Hz Marine

### C.5 Type reference



## Legend

<b>A</b>	Type of appliance • Under counter dishwasher
<b>B</b>	Rinsing type • 0 = without rinse pump • 1 = with rinse pump
<b>C</b>	Water treatment • 0 = without water softener [WS] • 1 = with water softener [WS]

## C.6 Responsibility

The Manufacturer declines any liability for damage and malfunctioning caused by:

- non-compliance with the instructions contained in this manual;
- repairs not carried out in a workmanlike fashion, and replacements with parts different from those specified in the spare parts catalogue (the fitting and use of non-original spare parts and accessories can negatively affect appliance operation and invalidates the original manufacturer warranty);
- operations carried out by non-specialised personnel;
- unauthorized modifications or operations;
- missing, lack or inadequate maintenance;
- improper appliance use;
- unforeseeable extraordinary events;
- use of the appliance by uninformed and / or untrained personnel;
- non-application of the current provisions in the country of use, concerning safety, hygiene and health in the workplace.

The Manufacturer declines any liability for damage caused by arbitrary modifications and conversions carried out by the user or the Customer.

The employer, workplace manager or service technician are responsible for identifying and choosing adequate and suitable personal protection equipment to be worn by operators, in compliance with regulations in force in the country of use.

The Manufacturer declines any liability for inaccuracies contained in the manual, if due to printing or translation errors.

Any supplements to the installation, use and maintenance manual the Customer receives from the Manufacturer will form an integral part of the manual and therefore must be kept together with it.

## C.7 Copyright

This manual is intended solely for consultation by the operator and can only be given to third parties with the permission of Electrolux Professional company.

## C.8 Keeping the manual

The manual must be carefully kept for the entire life of the appliance, until scrapping. The manual must stay with the appliance in case of transfer, sale, hire, granting of use or leasing.

## C.9 Recipients of the manual

This manual is intended for:

- the carrier and handling personnel;
- installation and commissioning personnel;
- specialised personnel - Customer Care service (see service manual).

## D TECHNICAL DATA

### D.1 Main technical characteristics for single phase appliances

Model		ELA1G CLA1G	ELA1GCL	ELA1WG NLA1WG	ELA1G8 VLA1G8	ELA1G4 VLA1G4	ELI1G36M
Supply voltage:		230V 1N~	230V 1N~	230V 1N~	208V 1~ 33 amp	240V 1~ 29 amp	230V 1N~
Convertible to:		400V 3N~ 230V 3~	400V 3N~ 230V 3~	400V 3N~ 230V 3~	208V 3~ 20 amp	240V 3~ 18 amp	400V 3N~ 230V 3~
Minimum Supply - Circuit Ampacity		-	-	-	34 amp	34 amp	-
Frequency	Hz	50	50	50	60	50	60
Max. power	kW	5.35 [7.35] <sup>1</sup>	6.85 [8.85] <sup>1</sup>	5.35 [7.35] <sup>1</sup>	6.85	6.85	6.85 [8.85] <sup>1</sup>
Boiler [booster] heating elements	kW	4.5	6	4.5	6.0	6.0	6
Tank heating elements	kW	2.0	2.0	2.0	2.2	2.2	2.0
Water supply pressure	bar [kPa] (psi)	0.5 - 7 [50 - 700]	0.5 - 7 [50 - 700]	0.5 - 7 [50 - 700]	0.5 - 7 [50 - 700] (7.25 - 101)	0.5 - 7 [50 - 700] (7.25 - 101)	2 - 3 [200 - 300]
Water supply temperature	°C [°F]	50 [122]	50 [122]	50 [122]	10 - 50 [50 - 122]	10 - 50 [50 - 122]	50 [122]
Water supply hardness	°f/d/°e [ppm]	14/8/10 max	14/8/10 max	48/27/33.7 max	14/8/10 max [140]	14/8/10 max [140]	14/8/10 max
Electric conductivity of water	µS/cm [µS/in]	< 400	< 400	< 400	< 400 [< 1016]	< 400 [< 1016]	< 400
Concentration of chlorides in water	ppm	< 20	< 20	< 20	< 20	< 20	< 20

Model		ELAI1G CLAI1G	ELAI1GCL	ELAI1WG NLAI1WG	ELAI1G8 VLAI1G8	ELAI1G4 VLAI1G4	ELI1G36M
Rinse cycle water consumption	l [gal]	2.5	2.5	2.5	2.5 [0.66]	2.5 [0.66]	2.5
Boiler capacity	l [gal]	12	12	12	12 [3]	12 [3]	12
Tank capacity	l	23	23	23	23 [6]	23 [6]	23
Standard cycle time with water supply at 50°C [122°F]. <sup>2</sup>	sec.	90 - 120 - 240	90 - 120 - 240	90 - 120 - 240	120 - 180 - 240 [120 - 240] <sup>3</sup>	120 - 180 - 240 [120 - 240] <sup>4</sup>	90 - 120 - 240
Legal noise level Leq <sup>5</sup>	dB(A)	LpA: 61dB - KpA: 1.5dB					
Protection rating		IPX4					
Power supply cable		H07RN-F					

1. If activated by software, coincidence of tank and boiler heating elements.
2. Standard cycle time may vary should the inlet water temperature and/or the boiler heating elements be different from that indicated above.
3. Only for model VLAI1G8
4. Only for model VLAI1G4
5. The noise emission values have been obtained according to EN ISO 11204.

## D.2 Main technical characteristics for three phases appliances

Model		ELAI3... ZLAI3... NLAI3... VLAI3... XLAI3... DW6-38	ELI3 ZLI3	ELI3CG ZLI3CD	ELAI3WP ZLAI3WP ZLAI3WG	ELI3G5M ELI3G35M	ELI3G6M ELAI3- GUSPH6 ELAI3- GUSPH5
Supply voltage:		400V 3N~	400V 3N~	380 - 415V 3N~ [400V 3N~] <sup>1</sup>	400V 3N~	400V 3N~ [230V 3~] <sup>2</sup>	440V 3~ [400V 3~] <sup>3</sup>
Convertible to:		230V 3~ 230V 1N~	230V 3~ 230V 1N~	220 - 240V 3~ 220 - 240V 1N~	230V 3~ 230V 1N~	[230V 1N~] <sup>2</sup> [400V 3N~] <sup>2</sup>	[230V 1N~] <sup>3</sup> [230V 3~] <sup>3</sup>
Frequency	Hz	50 [60] <sup>4</sup>	50	50	50	50	60 [50] <sup>3</sup>
Max. power	kW	5.35 [7.35] <sup>5</sup>	5.35 [7.35] <sup>5</sup>	6.85 [8.85] <sup>5</sup> 6.85 <sup>1</sup>	5.35 [7.35] <sup>5</sup>	8.85 [6.85] <sup>5</sup>	8.85 [6.85] <sup>5</sup>
Boiler heating elements	kW	4.5 [6] <sup>6</sup>	4.5	6	4.5	6	6
Tank heating elements	kW	2.0	2.0	2.0	2.0	2.0	2.0
Water supply pressure	bar [kPa]	0.5 [50] 7 [700]	2 [200] 3 [300]	2 [200] 3 [300]	0.5 [50] 7 [700]	2 [200] 3 [300]	2 [200] - 3 [300] 0.5 [50] - 7 [700] <sup>7</sup>
Water supply temperature	°C [°F]	50 [122] 10 - 50 [50 - 122]	50 [122]	10 - 50 [50 - 122] 50 - [122] <sup>1</sup>	50 [122]	50 [122]	50 [122]
Water supply hardness	°f/°d/°e	14/8/10 max	14/8/10 max	14/8/10 max	48/27/33.7 max	14/8/10 max	14/8/10 max
Electric conductivity of water	µS/cm	< 400	< 400	< 400	< 400	< 400	< 400
Concentration of chlorides in water	ppm	< 20	< 20	< 20	< 20	< 20	< 20
Rinse cycle water consumption	l	2.5	2.5	2.5	2.5	2.5	2.5
Boiler capacity	l	12	12	12	12	12	12

Model		ELAI3... ZLAI3... NLAI3... VLAI3... XLAI3... DW6-38	ELI3 ZLI3	ELI3CG ZLI3CD	ELAI3WP ZLAI3WP ZLAI3WG	ELI3G5M ELI3G35M	ELI3G6M ELAI3- GUSPH6 ELAI3- GUSPH5
Tank capacity	l	23	23	23	23	23	23
Standard cycle time with water supply at 50°C [122°F]. <sup>9</sup>	sec.	90 - 120 - 240	90 - 120 - 240	90 - 120 - 240	90 - 120 - 240	90 - 120 - 240	90 - 120 - 240
		[90 - 180] <sup>10</sup>					[120 - 180 - 240] <sup>7</sup>
Legal noise level Leq <sup>11</sup>	dB(A)	LpA: 61dB - KpA: 1.5dB					
Protection rating	IPX4						
Power supply cable	H07RN-F						

1. Only for model ZLI3CD
2. Only for model ELI3G35M
3. Only for model ELAI3GUSPH5
4. Only for model ELAI3P6
5. If activated by software, coincidence of tank and boiler heating elements.
6. Only for model NLAI3CG
7. Only for models ELAI3GUSPH5 and ELAI3GUSPH6
8. Only for model NLAI3CG
9. Standard cycle time may vary should the inlet water temperature and/or the boiler heating elements be different from that indicated above.
10. Only for model VLAI3G
11. The noise emission values have been obtained according to EN ISO 11204.

Model		ELAI3GTL	ELAI3GCL	ELAI3GWL	EUCA060 VUCA060 ZUCA060 ELAI3PML ELAI3WGML	ET5AI	ET5AIP
Supply voltage:		400V 3N~	400V 3N~	400V 3N~	400V 3N~	400V 3N~	400V 3N~
Convertible to:		230V 3~ 230V 1N~	230V 3~ 230V 1N~	230V 3~ 230V 1N~	230V 3~ 230V 1N~	230V 3~ 230V 1N~	230V 3~ 230V 1N~
Frequency	Hz	50	50	50	50	50	50
Max. power	kW	5.35 [7.35] <sup>1</sup>	9.85 [11.85]	6.85 [8.85] <sup>1</sup>	6.85 [8.85] <sup>1</sup>	8.85	6.85
Boiler heating elements	kW	4.5	9	6	6	6	6
Tank heating elements	kW	2.0	2.0	2.0	2.0	2.0	2.0
Water supply pressure	bar [kPa]	0.5 [50] 7 [700]	0.5 [50] 7 [700]	0.5 [50] 7 [700]	0.5 [50] 7 [700]	2 [200] 3 [300]	0.5 [50] 7 [700]
Water supply temperature	°C [°F]	50 [122]	50 [122]	50 [122]	50 [122]	10 [50]	10 [50]
Water supply hardness	°f°d°e	14/8/10 max	14/8/10 max	14/8/10 max	14/8/10 max [48/27/33.7 max] <sup>2</sup>	14/8/10 max	14/8/10 max
Electric conductivity of water	µS/cm	< 400	< 400	< 400	< 400	< 400	< 400
Concentration of chlorides in water	ppm	< 20	< 20	< 20	< 20	< 20	< 20
Hot rinse cycle water consumption	l	3 (for wash cycle 1) 3.5 (for wash cycle 2) 4 (for wash cycle 3)	2.5	3.8	3 (for wash cycle 1 and 2) 4 (for wash cycle 3) <sup>3</sup>	3	3
Cold rinse cycle water consumption	l	1.8	-	-	-	-	-
Boiler capacity	l	12	12	12	12	12	12
Tank capacity	l	23	23	23	23	23	23

Model		ELAI3GTL	ELAI3GCL	ELAI3GWL	EUCA060 VUCA060 ZUCA060 ELAI3PML ELAI3WGML	ET5AI	ET5AIP
Standard cycle time with water supply at 50°C [122°F]. <sup>4</sup>	sec.	90 - 120 - 240	90 - 120 - 240	90 - 113 - 173	90 - 120 - 240 <sup>3</sup> [90 - 240] <sup>5</sup>	90 - 120 - 120	90 - 120 - 120
Legal noise level Leq <sup>6</sup>	dB(A)	LpA: 61dB - KpA: 1.5dB					
Protection rating		IPX4					
Power supply cable		H07RN-F					

1. If activated by software, coincidence of tank and boiler heating elements.
2. Only for model ELAI3WGML
3. Disinfection cycle.
4. Standard cycle time may vary should the inlet water temperature and/or the boiler heating elements be different from that indicated above.
5. Only for model VUCA060
6. The noise emission values have been obtained according to EN ISO 11204.

### D.3 Characteristics of power supply cable

	400 - 440V 3~		380 - 415V 3~N		220 - 240V 3~		220 - 240V 1~N	
	C	S	C	S	C	S	C	S
5.35 kW	4x2,5 mm <sup>2</sup>	16A 3P	5x2,5 mm <sup>2</sup>	16A 3P + N	4x4 mm <sup>2</sup>	20A 3P	3x6 mm <sup>2</sup>	30A 1P + N
6.85 kW	4x2,5 mm <sup>2</sup>	16A 3P	5x2,5 mm <sup>2</sup>	16A 3P + N	4x4 mm <sup>2</sup>	20A 3P	3x6 mm <sup>2</sup>	40A 1P + N
7.35 kW	4x2,5 mm <sup>2</sup>	16A 3P	5x2,5 mm <sup>2</sup>	16A 3P + N	4x4 mm <sup>2</sup>	25A 3P	3x10 mm <sup>2</sup>	40A 1P + N
8.85 kW	4x2,5 mm <sup>2</sup>	16A 3P	5x2,5 mm <sup>2</sup>	16A 3P + N	4x4 mm <sup>2</sup>	32A 3P	3x10 mm <sup>2</sup>	50A 1P + N
9.35 kW	4x2,5 mm <sup>2</sup>	20A 3P	5x2,5 mm <sup>2</sup>	20A 3P + N	4x6 mm <sup>2</sup>	32A 3P	3x10 mm <sup>2</sup>	50A 1P + N
11.85 kW	4 4 mm <sup>2</sup>	32A 3P	5x4 mm <sup>2</sup>	25A 3P + N	4x8 mm <sup>2</sup>	40A 3P	3x16 mm <sup>2</sup>	63A 1P + N

C = Power supply cable  
S = On/Off switch

### D.4 Characteristics of power supply

The AC power supply to the machine must meet the following conditions:

- max. voltage variation  $\pm 6\%$
- max. frequency variation  $\pm 1\%$  continuous  $\pm 2\%$  for a short period.

Harmonic distortion, unbalanced three-phase supply voltage, voltage pulses, interruption, dips and the other electric characteristics must respect the provisions of point 4.3.2 of Standard EN 60204-1 (IEC 60204-1).

## E TRANSPORT, HANDLING AND STORAGE



### WARNING

Refer to "Safety Information".

#### E.1 Introduction

Transport (i. e. transfer of the appliance from one place to another) and handling (i. e. transfer inside workplaces) must occur with the use of special and adequate means.



### CAUTION

The appliance must only be transported, handled and stored by specialised personnel, who must have:

- specific technical training and experience in the use of lifting systems;
- knowledge of the safety regulations and applicable laws in the relevant sectors;
- knowledge of the general safety rules;
- personal protection equipment suitable for the type of operation carried out;
- the ability to recognize and avoid any possible hazard.

#### E.2 Transport: Instructions for the carrier



### IMPORTANT

The transported load can shift:

- when braking;
- when accelerating;
- in corners;
- on rough roads.

#### E.3 Handling

Arrange a suitable area with flat floor for appliance unloading and storage operations.

##### E.3.1 Procedures for handling operations

###### Before lifting:

- send all operators to a safe position and prevent persons from entering the handling area;
- make sure the load is stable;
- make sure no material can fall during lifting. Manoeuvre vertically in order to avoid impacts;
- handle the appliance, keeping it at minimum height from the ground.



### For correct and safe lifting operations:

- use the type of equipment most suitable for characteristics and capacity (e.g. electric pallet truck or lift truck);
- cover sharp edges;
- check the forks and lifting procedures according to the instructions given on the packing.

### E.3.2 Shifting

#### The operator must:

- have a general view of the path to be followed;
- stop the manoeuvre in case of hazardous situations.

### E.3.3 Placing the load

- Before placing the load, make sure the way is free and that the floor is flat and can take the load.
- Remove the appliance from the wooden pallet, move it to one side, then slide it onto the floor.

## E.4 Storage

The appliance and/or its parts must be stored and protected from damp, in a non-aggressive place, free of vibrations and with room temperatures between -10°C [14°F] and 50°C [122°F].

The place where the appliance is stored must have a flat support surface to avoid deforming the appliance or damage to the support feet.



### CAUTION

Do not make modifications to the parts supplied with the appliance. Any missing or faulty parts must be replaced with original parts.

## E.5 Unpacking



### IMPORTANT

Immediately check for any damage caused during transport. Inspect the packaging before and after unloading.

1. Remove the packaging.  
Take care when unpacking and handling of the appliance to not cause any shocks on itself.
2. Keep all the documentation contained in the packaging.

#### Note

- The forwarder is responsible for the goods during transport and delivery.
- Make a complaint to the forwarder in case of visible or hidden damage.
- Specify any damage or shortages on the dispatch note.
- The driver must sign the dispatch note: the forwarder can reject the claim if the dispatch note is not signed (the forwarder can provide the necessary form).
- For hidden damage or shortages becoming apparent only after unpacking, request the forwarder for inspection of the goods within and no later than 15 days after delivery.

## F INSTALLATION AND ASSEMBLY



### WARNING

Refer to “*Safety Information*”.

### F.1 Introduction

To ensure correct operation of the appliance and maintain safe conditions during use, carefully follow the instructions given below in this section.

### F.2 Customer responsibilities

The Customer must provide for the following:

- installation of an adequate electrical power supply ahead of the appliance, according to the equipment's technical specifications (D *TECHNICAL DATA* and D.4 *Characteristics of power supply*);
- the equipotential connection  $\nabla$  of the workplace electrical system to the metal structure of the machine by means of a copper cable of adequate section (see position “EQ” in *Installation diagram*);
- adducting for the electrical connection between the workplace electric panel and the equipment;
- the water supply and drain connections and other connections as indicated in D *TECHNICAL DATA* and in the paragraph F.6 *Plumbing connections*;

### F.3 Characteristics of the installation place

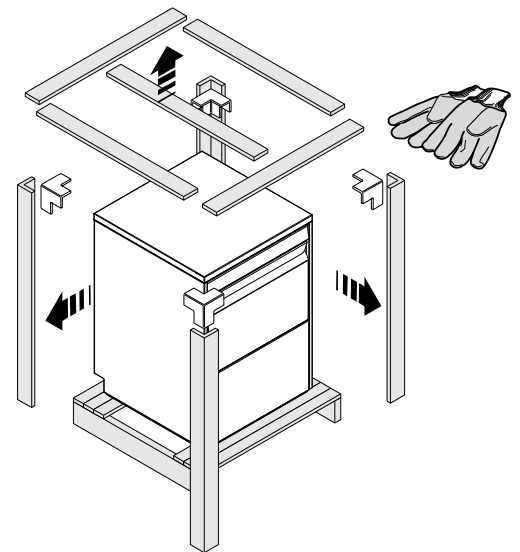
The machine is designed for installation in professional and not domestic-type kitchens. Water collection traps/ metal grates must be arranged in the floor at the machine discharges (see the *Installation diagram*), possibly replaceable with a single water trap sized for a flow rate of at least 3 l/s.

### F.4 Positioning

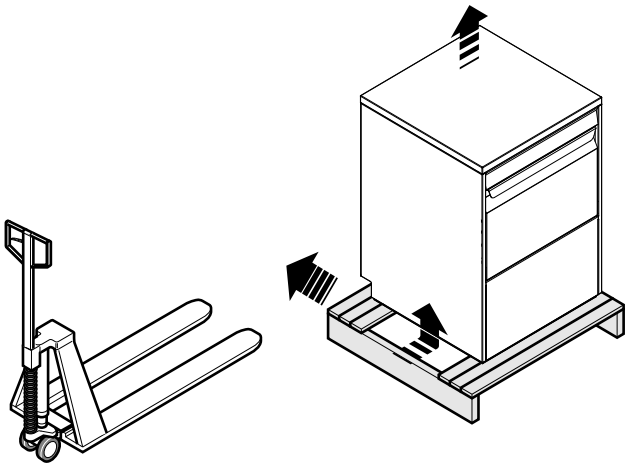
The machine must be taken to the place of installation and the packing base removed only when being installed.

Arranging the machine:

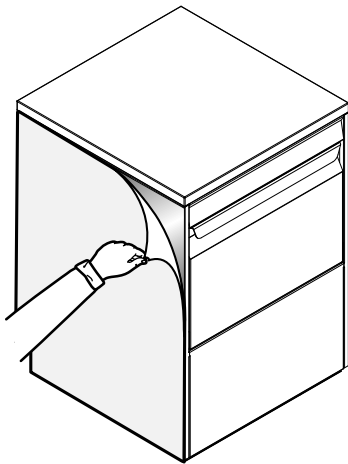
- Wear protective gloves and unpack the machine.



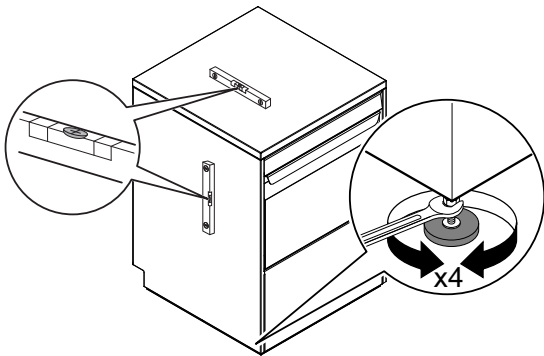
- Lift the equipment with a lift truck, remove the base and position it the place of use.



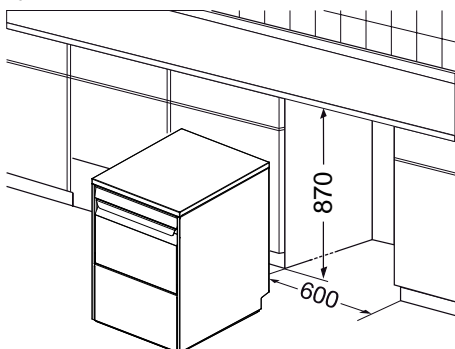
- Carefully remove the protective film from the outer panels without tearing it, to avoid leaving traces of glue.



- Adjust the equipment by turning the special adjustable feet and making sure it is perfectly level, both length wise and crosswise.



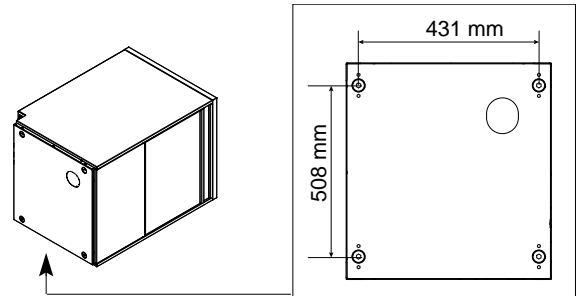
- If the dishwasher is installed under a work plan, the dimensions of the space, where it is inserted, must be the same as those shown in the following figure. Position the dishwasher and level the appliance by turning the relative height-adjustable feet.



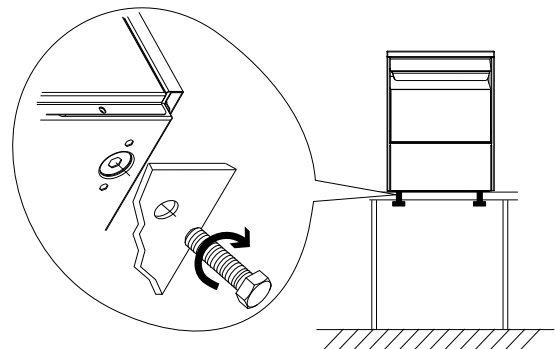
#### CAUTION

During the washing cycles, small amounts of steam may escape from the dishwasher door. Protect all unsuitable materials exposed to the dishwasher steam and detergents. If you must insert the dishwasher under a work plan, make sure to shield all surfaces close to the dishwasher with materials resistant to moisture and steam.

- If the dishwasher is installed on a special support (eg.: work plan), follow these steps:
  1. Accessing the appliance bottom panel and unscrew the 4 feet.
  2. Make 4 holes  $\varnothing = 9$  mm on the support respecting the distances shown in the figure below.



3. Put the dishwasher on the support by matching the holes just made with the seats of the feet in the appliance bottom panel (see following figure).
4. Fix the dishwasher steadily using screws M8.



#### F.5 Disposal of packing

The packing must be disposed of in compliance with the current regulations in the country where the appliance is used. All the packing materials are environmentally friendly.

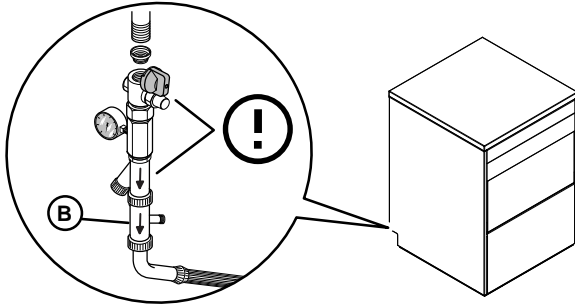
They can be safely kept, recycled, or burned in an appropriate waste incineration plant. Recyclable plastic parts are marked as follows:

 <b>PE</b>	<b>Polyethylene</b> <ul style="list-style-type: none"> <li>• Outer wrapping</li> <li>• Instructions bag</li> </ul>
 <b>PP</b>	<b>Polypropylene</b> <ul style="list-style-type: none"> <li>• Straps</li> </ul>
 <b>PS</b>	<b>Polystyrene foam</b> <ul style="list-style-type: none"> <li>• Corner protectors</li> </ul>

The parts in wood and cardboard can be disposed of, respecting the current regulations in the country where the appliance is used.

## F.6 Plumbing connections

- Connect the appliance water supply pipe "WI" (see the *Installation diagram*) to the mains, fitting a cut-off tap, the filter provided and a pressure gauge between the appliance and the mains (see figure below).
- In models with incorporated water softener and in some specific models, connect the double non-return valve "B" supplied and the machine supply pipe (see figure below).



- Check that the dynamic water supply pressure, measured between the appliance and the main, is between 2 bar [200 kPa] and 3 bar [300 kPa] for machines with pressure boiler and between 0.5 bar [50 kPa] and 7 bar [700 kPa] for machines with atmospheric boiler (test while dishwasher tank or boiler is filling with water).



### NOTE!

If the pressure is too high, fit a suitable pressure reducer on the inlet pipe.

- On the model with free-fall drainage: connect the waste outlet pipe (detail "D" in the *Installation diagram*) to the main drain pipe, fitting a trap, or place the outlet pipe over an "S" trap set into the floor.
- On the model with drain pump: position the outlet pipe at a height anywhere between 750 mm and 1000 mm from the floor. Depending on the model, check that from 2 L to 3 L of water flow out of the outlet pipe during the rinse cycle.



### IMPORTANT

Make sure drain pipe does not kink, pinch or twist, resulting in a water flow restriction.



### CAUTION

Always use a new set of joints if you remove and reinstall the water inlet pipe to the appliance.

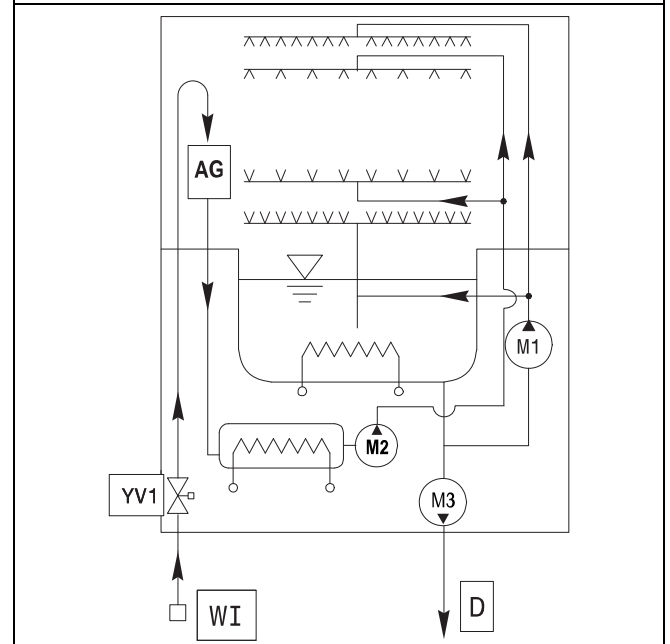


### IMPORTANT

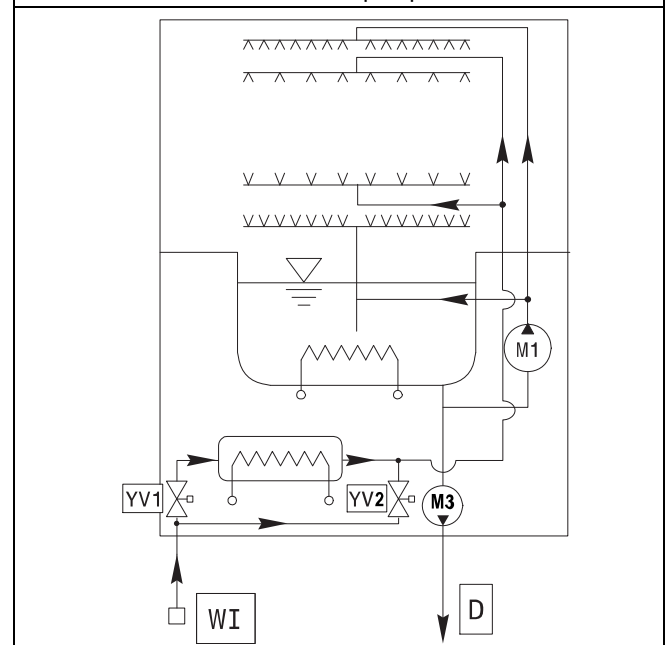
Watermark labelled appliances must be installed in accordance with Plumbing Code of Australia (PCA).

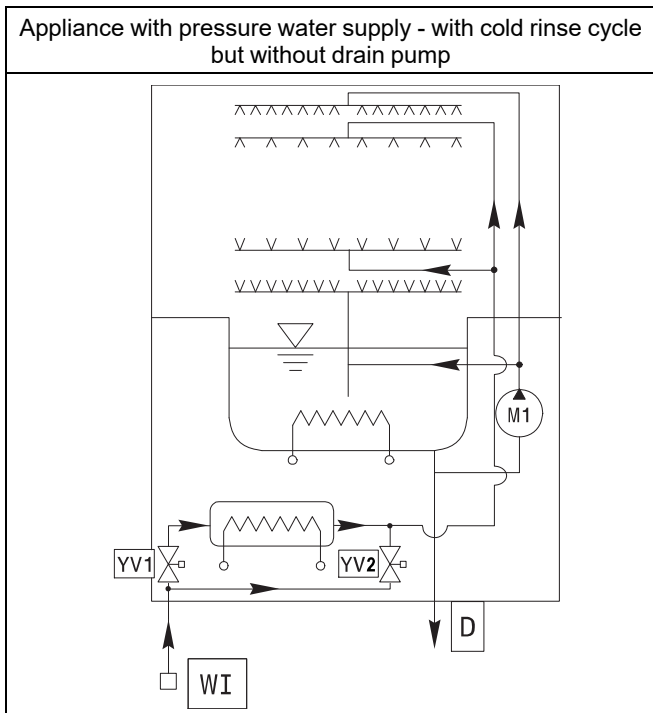
## F.7 Plumbing circuits

Appliance with atmospheric water supply - with drain pump



Appliance with pressure water supply - with cold rinse cycle and with drain pump and





### LEGEND

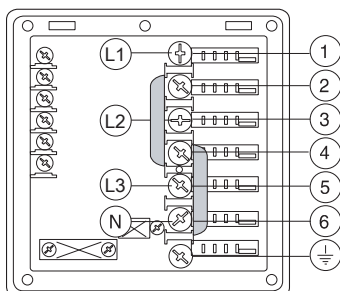
<b>WI</b>	Water inlet
<b>D</b>	Drain
<b>M1</b>	Wash pump
<b>M2</b>	Rinse pump
<b>M3</b>	Drain pump
<b>AG</b>	Air Gap
<b>YV1</b>	Filling solenoid valve
<b>YV2</b>	Cold rinse solenoid valve

## F.8 Electrical connections

- Connection to the power supply must be carried out in compliance with the regulations and provisions in force in the country of use.
- Make sure the machine power supply voltage specified on the rating plate matches the mains voltage.
- Make sure the system power supply is arranged and able to take the actual current load and that it is executed in a workmanlike manner according to the regulations in force in the country of use.
- The earth wire from the terminal board side must be longer (max 20 mm) than the phase wires.
- Connect the power cable earth wire to an efficient earth. The equipment must also be included in an equipotential system, whose connection is made by means of screw EQ (see par. *Installation diagram*) indicated by the symbol  $\nabla$ . The equipotential wire must have a section of at least 10 mm<sup>2</sup>.

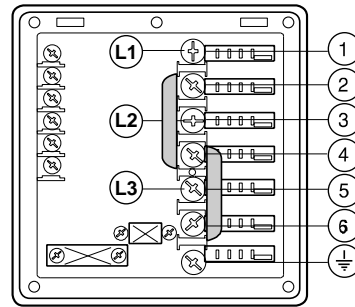
### Power supply 380-415V 3N~

Open the power supply terminal board and insert the jumpers provided as follows: one jumper between terminals 2 and 4 and another between terminals 4 and 6. Using a suitable power supply cable (see D *TECHNICAL DATA* table), connect the three phases to terminals 1, 3 and 5, the neutral to terminal 6 and the earth wire to the terminal  $\perp$ .



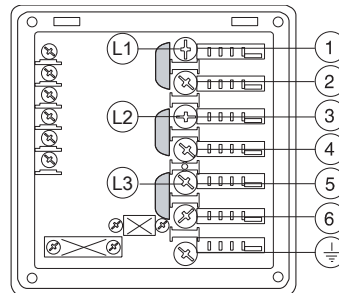
### Power supply 400 - 440V 3

Open the power supply terminal board and insert the jumpers provided as follows: one jumper between terminals 2 and 4 and another between terminals 4 and 6. Using a suitable power supply cable (see D *TECHNICAL DATA* table), connect the three phases to terminals 1, 3 and 5, the neutral to terminal 6 and the earth wire to the terminal  $\perp$ .



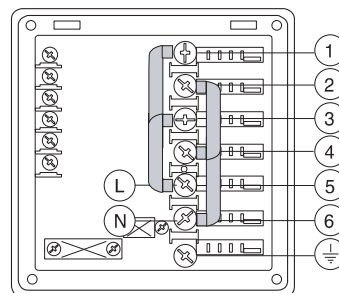
### Power supply 220 - 230V 3

Open the power supply terminal board and insert the jumpers provided as follows: one jumper between terminals 1 and 2, one between terminals 3 and 4 and another between terminals 5 and 6. Using a suitable power supply cable (see D *TECHNICAL DATA* table) connect the three phases to terminals 1, 3 and 5 and the earth wire to the terminal  $\perp$ .



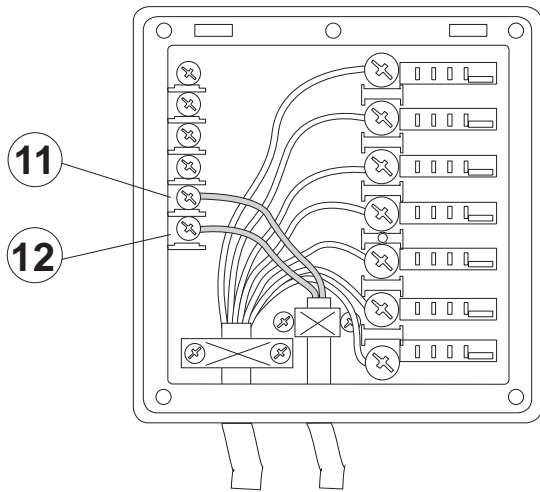
### Power supply 220 - 230V 1N

Open the power supply terminal board and insert the jumpers provided as follows: two jumpers between terminals 1, 3, 5 and another two between terminals 2, 4 and 6. Using a suitable power supply cable (see D *TECHNICAL DATA* table), connect the phase and neutral to terminals 5 and 6 respectively and the earth wire to the terminal  $\perp$ .



### F.8.1 Connections provided for energy control

This appliance is designed for an external energy consumption control.



Connect the energy peak controller across terminals 11 and 12.



**CAUTION**

A normally open (n. o.) contact of the controller must be connected across terminals 11 and 12. When this contact closes the boiler heating elements are disconnected. Using the dishwasher in these conditions may increase the cycle time.

**F.9 Safety devices**

- An automatic-reset overload protector incorporated in the electric pump windings cuts off the power to the pump in case of faulty operation.
- A device prevents the booster water from returning back into the system in the event of a water supply system fault.
- An overflow pipe connected to the discharge ensures a constant water level in the tank.
- If the water level in the tank is too high, the drain pump (if present) automatically activates to empty out the excess water.



**IMPORTANT**

The Manufacturer declines any liability if the accident-prevention regulations are not respected.

**F.10 Detergent/rinse aid dispensers and prearrangements**



**NOTE!**

The following paragraph does not apply for models "Ecotemp", since the appliance already has the prearrangements for the detergent and rinse aid dispensers.



**IMPORTANT**

If the machine is connected to a water softener and/or a reverse osmosis system, contact the detergent supplier for a specific product.



**CAUTION**

The peristaltic dispensers (detergent and rinse-aid) and the tube inside the rinse-aid dispenser require periodical maintenance (at least once or twice a year) or after prolonged machine idle periods.

**Dishwasher with incorporated liquid detergent dispenser**

1. The pump "R" delivers about 0.9 g/s of detergent. At the first water filling of the day it delivers approx. 44 g in 45 seconds, to obtain a concentration of 2g/l. At each cycle the pump "R" delivers approx. 6 g in 6 sec. Dispenser operation time can be modified according to the instructions given in the next section. Insert the hose (supplied) in the detergent container.

**Dishwashers with incorporated peristaltic rinse-aid dispenser pump**

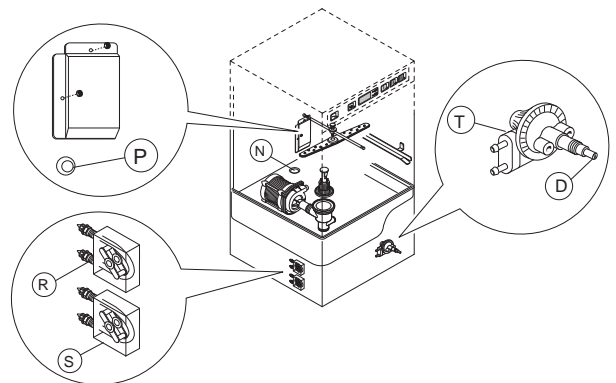
2. The pump "S" dispenses about 0.1 g/s of rinse-aid. It dispenses 0.3 g in 3 sec. at each rinse.

Dispenser operating time may be changed, following the instructions given in the next paragraph. Insert the hose provided in the kit into the rinse-aid container (in the versions without incorporated rinse-aid dispenser only).

**Dishwashers with incorporated rinse-aid diaphragm dispenser pump**

3. The pump "T" is installed in appliances with pressure boiler. Dispensed amounts may be changed according to the instructions given in the paragraph below. Insert the supplied hose into the rinse-aid container (in the versions without incorporated rinse-aid dispenser only).

**F.10.1 Mechanical connections for automatic detergent dispenser**



There is a ready-made impression "N" to be perforated (ø 8 mm) for positioning the detergent concentration measuring sensor.

Inside the tank there is a hole "P" (ø 10 mm) closed with a plug, which may be used for mounting a liquid detergent injector.



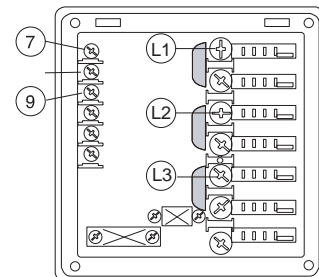
**NOTE!**

The "Ecotemp" models have a hole "N" (ø 22 mm) closed with a plug. The sensor and liquid detergent injector should be installed without prejudicing the watertightness of the appliance.

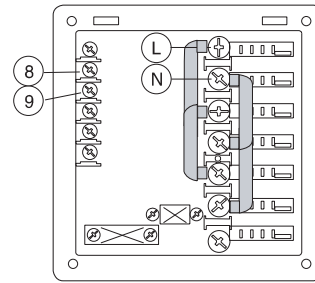
**F.10.2 Electrical connections for automatic detergent and rinse-aid dispensers**

Terminals are available on the power supply terminal board for the electrical connection of external dispensers working at 220 - 240 V. Max. power 30 VA.

- Connect the detergent dispenser between terminals 7 and 9. These connection points are live for a set time during filling of the tank and at the start of the wash cycle (see paragraph 1.2 *Setting the dispensers*).

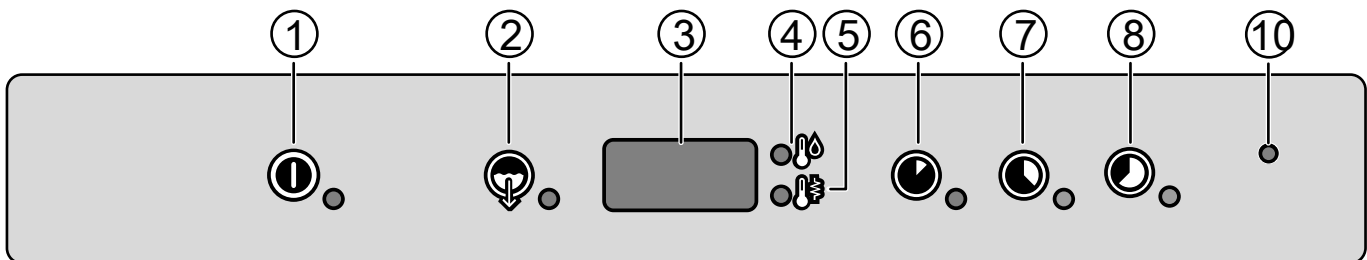
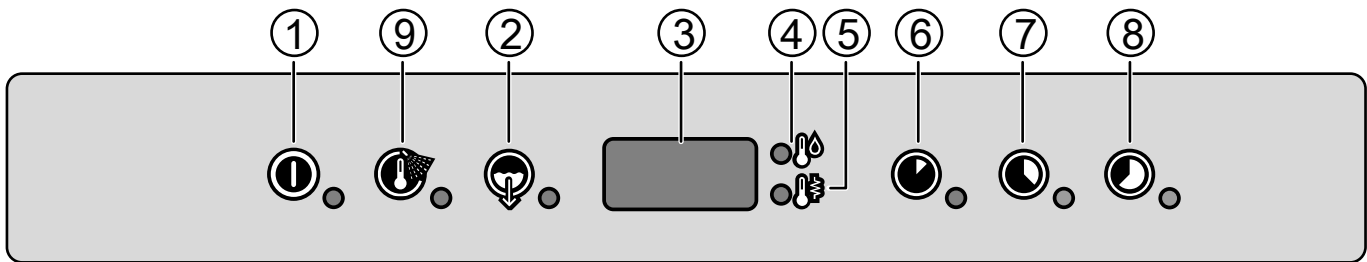
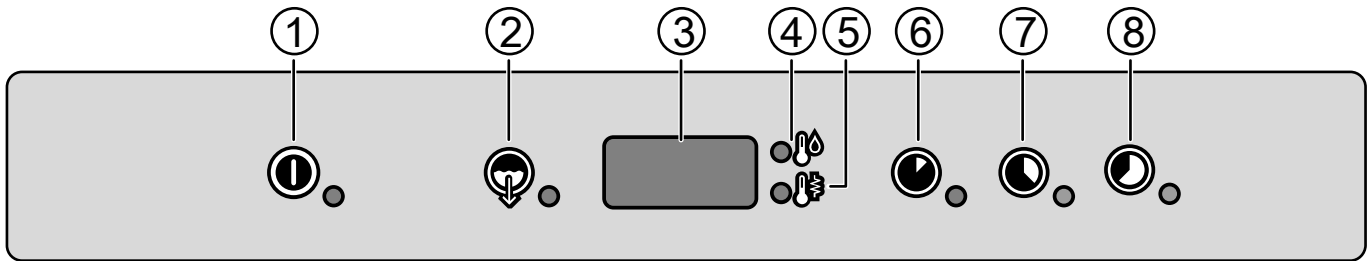
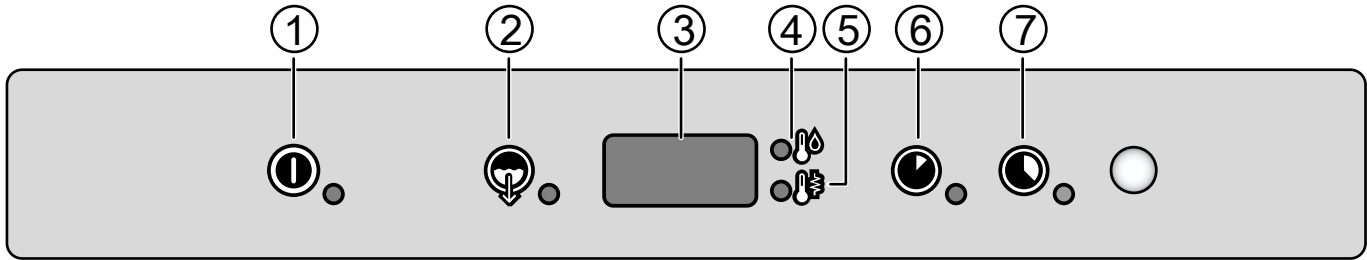


- Connect the rinse-aid dispenser between terminals **8** and **9**. These connection points are live during filling of the tank and at the end of the rinse cycle for a set time (see 1.2 *Setting the dispensers* paragraph).



## G CONTROL PANEL DESCRIPTION

### G.1 Control panel description



1	On/Off
2	Drain/self-cleaning cycle
3	Display
4	Tank temperature indicator
5	Boiler temperature indicator
6	Wash cycle 1
7	Wash cycle 2
8	Wash cycle 3
9	Cold rinse cycle
10	Active/Wash Safe Control indicator



#### NOTE!

The temperature shown on the display refers to the boiler if the indicator "5" is lit up or to the tank, if the indicator "4" is lit up.

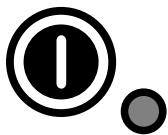
The tank temperature is displayed during the wash phase and the boiler temperature during the rinse phase.

### G.2 Basic Controls

Described below are all the single buttons and functions available in the various control panel models listed above. Some functions are common to all models of the range, whereas others are available only on some versions.

### On/Off

This button indicates equipment status: on or off. When the equipment is on, the button indicator is lit up.



### Cold rinse cycle

This button starts a cold rinse cycle at the end of the selected wash cycle. When the cycle is selected, the button indicator is lit up. This cycle remains active for all the wash cycles. Particularly suitable for rinsing glasses.



### Drain / self-cleaning cycle

This button starts a drain/self-cleaning cycle. When the cycle is selected, the button indicator is lit up.



### Wash cycle 1

This button starts **Wash cycle 1**. When the cycle is selected, the button indicator is lit up. This cycle is recommended for washing not very dirty dishes.



### Wash cycle 2

This button starts **Wash cycle 2**. When the cycle is selected, the button indicator is lit up. This cycle is recommended for washing normally dirty dishes.



#### NOTE!

If the dishwasher has only 2 wash cycles, this cycle is recommended for washing very dirty dishes.



### Wash cycle 3

This button starts **Wash cycle 3**. When the cycle is selected, the button indicator is lit up. This cycle is recommended for washing very dirty dishes.



### Active/Wash Safe Control indicator



In the **Active/Wash Safe Control** models a special device checks the temperature of the rinse phase. The **GUARANTEED RINSE SYSTEM [GRS]** is an automatic rinse time/temperature control system.

The **GUARANTEED RINSE SYSTEM** is active:

- during the wash cycle and the indicator light is OFF;
- during the rinse cycle and the indicator light comes on and is GREEN;
- at the end of the rinse cycle. The indicator light is GREEN if the rinse temperature and time have been carried out as per the programme, otherwise the indicator light is RED;
- upon opening the door, the indicator light GOES OUT.



#### NOTE!

If the indicator light is RED, wait for a couple of minutes and then repeat the wash cycle.

## H COMMISSIONING

### H.1 Preliminary checks, adjustments and operational tests



#### WARNING

These operations must only be carried out by specialised technicians provided with adequate personal protection equipment (e. g. safety footwear, gloves, glasses, etc.), tools and suitable ancillary equipment with the appliance switched off and cold.

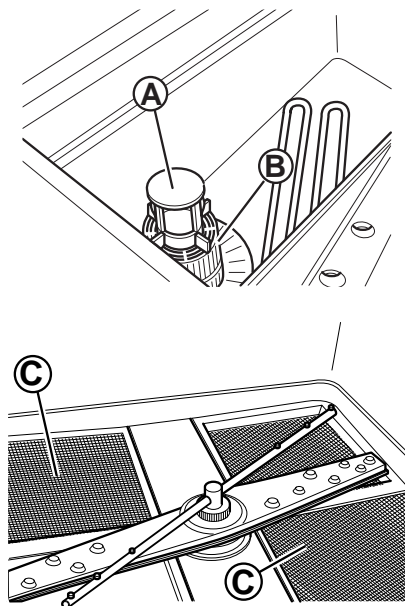
### Electrical and plumbing checks

Before starting the machine:

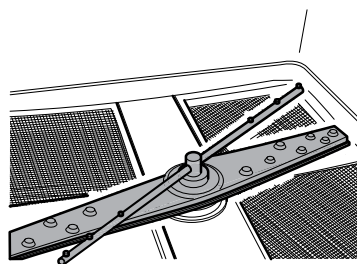
- check correct connection of the electrical wires that feed the machine;
- make sure the power supply voltage and frequency match the data given in the technical data table (D *TECHNICAL DATA*);
- check correct connection of the water supply and drain pipes (see paragraph F.6 *Plumbing connections*);
- make sure all the guards, safety devices and emergency switches are in place and efficient.

### Check the positioning of tank components

- Make sure that, the overflow "A", the tank filter "B", and the flat filters "C" are correctly fitted.



- Make sure the upper and lower wash and rinse arms are correctly fitted.

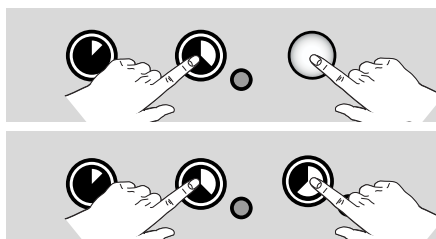


## I BASIC MACHINE SETUP

### I.1 Manual activation

Whenever the detergent containers are replaced, it may be necessary to activate the dispensers manually in order to fill the hoses and eliminate any air. Simultaneously press the buttons, as shown in the figures below. If necessary, repeat this operation several times.

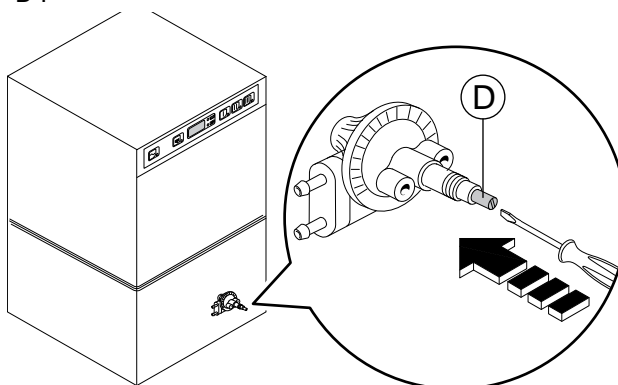
#### Detergent dispenser



#### Rinse-aid dispenser



In the appliances with pressure boiler, the diaphragm dispenser pump may be manually activated by pressing screw "D".



### I.2 Setting the dispensers

All the operations must be carried out with the machine switched on, the door open and no cycle selected.

#### Legend

	Increase
	Decrease
	Confirm or select next parameter

#### I.2.1 Peristaltic dispenser

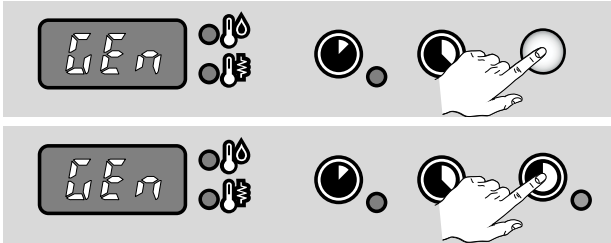
##### Sequential start

1. Press the indicated buttons simultaneously for 5 seconds:





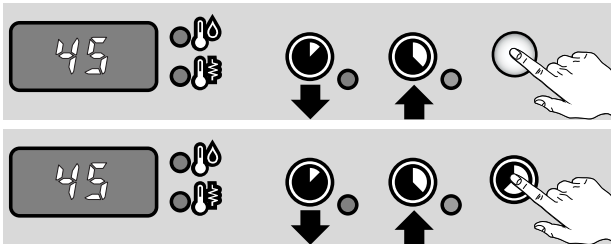
2. Display of programming mode:



3. Initial amount of detergent:



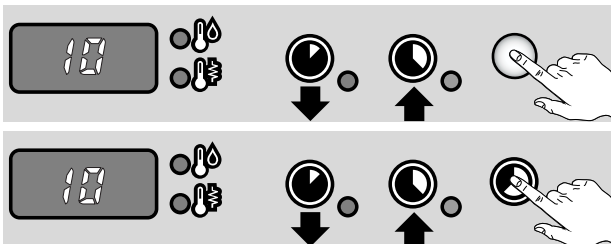
4. Setting the activation time:



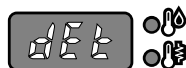
5. Initial amount of rinse-aid:



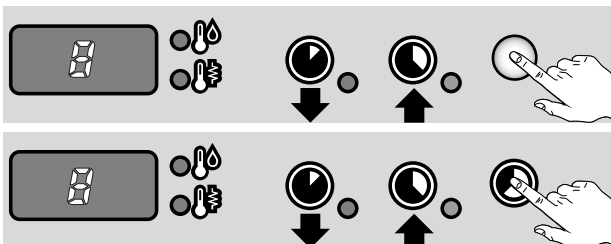
6. Setting the activation time:



7. Amount of detergent during the cycle:



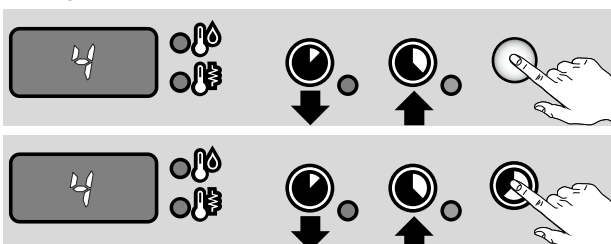
8. Setting the activation time:



9. Amount of rinse-aid during the cycle:



10. Setting the activation time:



11. Exit from programming mode:



NOTE!

To obtain excellence washing performance, use detergent, rinse aid and descaling agent suggested by Electrolux Professional. In the Electrolux Professional web site, open the "Accessories and Consumables" web page and navigate into the dishwashing equipment tab to order most suitable detergents and accessories.

Notes for external dispensers:

- if the setting is:  $det = 181$ , the **detergent dispenser** only operates during wash pump operation; terminals 7-9 of the main terminal board are powered at the same time.
- if the setting is:  $det = 182$ , the **detergent dispenser** only operates during filling electrovalve operation for restoring the boiler level; terminals 7-9 of the main terminal board are powered at the same time.
- if the setting is:  $rai = 61$ , the **rinse-aid dispenser** only operates during filling electrovalve operation for restoring the boiler level; terminals 8-9 of the main terminal board are powered at the same time.
- if the setting is:  $rai = 62$ , the **rinse-aid dispenser** only operates during wash pump operation; terminals 8-9 of the main terminal board are powered at the same time.



NOTE!


For connections, see the wiring diagram.

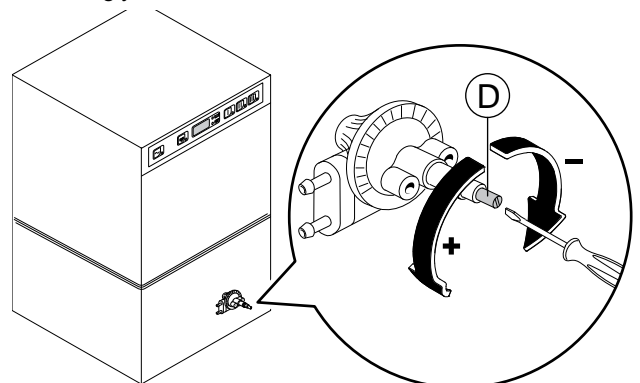
Example

Supposing that an external detergent dispenser has been connected with a tank concentration measuring sensor, a standard setting could be as follows:

$dln = 0$	the dispenser is not activated during filling of the tank.
$det = 181$	the dispenser is activated during wash pump operation and, thanks to the concentration measured by the conduction sensor, the correct amount of detergent is dispensed.

1.2.2 Rinse-aid diaphragm dispenser

To change the dispensed amount, turn  on screw "D" accordingly.



NOTE!

To check the effectiveness of the rinse-aid, look at freshly washed glasses against the light. Drops of water remaining on the glass indicate an insufficient amount while streaks indicate an excess.

**CAUTION**

If changing to a different detergent/rinse-aid type (even one by the same manufacturer), you must rinse the suction and pressure hoses with fresh water before connecting the new detergent/rinse-aid container. Otherwise, the mixing of different types of detergent/rinse-aid will cause crystallization, which may result in a breakdown of the dosing pump. Failure to observe this condition will invalidate the guarantee and product liability.

## J DISHWASHER WITH INCORPORATED CONTINUOUS WATER SOFTENER

### J.1 Continuous water softener

**IMPORTANT**

Unlike conventional water softeners, this continuous softener does not require machine stops for regenerating the resins.

By means of special resins, this device removes the calcareous substances from the feed water, supplying decalcified water for washing. For the continuous softener to work properly the resins must be regenerated periodically, with frequency depending on the hardness of the water and the number of wash cycles carried out.

#### Degrees of water hardness

Level	Cycles	Degrees		
		°fH	°dH	°cH
1	soft	0 – 5.5	0 – 3	0 – 4
2	medium	7 – 14	4 – 8	5 – 10
3	hard	16 – 26.5	9 – 15	11 – 18.6
4	very hard	> 27	> 16	> 19

#### Salt container refill frequency according the water inlet hardness

Water hardness			Cycles	Days
°f	°d	°e		
15	8,4	10,5	1168	39
20	11,2	14	837	28
25	14	17,5	589	19
30	16,8	21,1	506	17
35	19,6	24,6	423	14
40	22,4	28,1	341	11

The salt container must be filled approximately every<sup>1</sup>:  
Using cycle 2 for 30 cycles/day, the salt container must be filled approximately every<sup>1</sup>:

**NOTE!**

The factory setting of max. outlet water hardness is 10 °f/ 5.6 °d/ 7 °e. During installation of the appliance, the installation technician should nonetheless check the correct setting of this value.

1. Considering a rinse time according to the factory settings.

#### J.1.1 Salt container

**CAUTION**

Only use coarse salt with a purity level of 99.8% NaCl. The use of salt with a lower purity level can cause clogging of the salt container filter and malfunctioning of the water softener.

**CAUTION**

Do not introduce any other chemical substances such as detergent, rinse aid or descaling agent, since these would inevitably damage the appliance. Such damage invalidates any warranty and relieves the manufacturer of all liability.

The water can only be softened if there is salt in the special container. The salt container must be filled when the dishwasher is started the first time and whenever the message **SAL End** appears on the display and an audible alarm sounds.

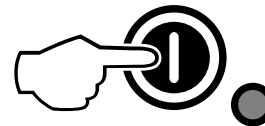
Wash cycles can be started just the same, even if the display signals no salt; in which case the water used for washing is not softened.

**IMPORTANT**

Open the salt container only when the message **SAL End** is displayed. Opening the cap when the message **SAL End** is not displayed can cause spilling of the saline solution and compromise correct machine operation.

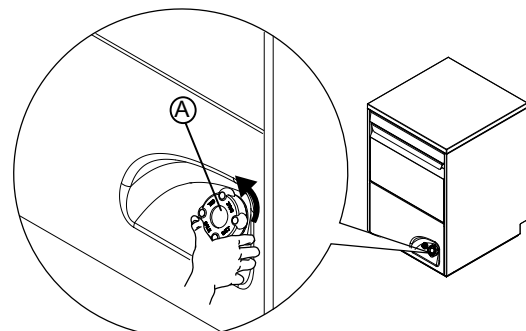
#### J.1.2 Fill the salt container

- Switch off the dishwasher by pressing On/Off button.

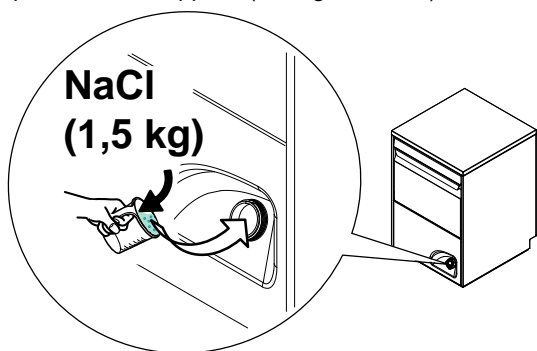


- Unscrew cap "A" (Figure below) of the salt container, turning it counterclockwise.

The salt container always has water in it, therefore it is normal if water comes out during filling.



- Pour approx. 1.5 kg of coarse salt [NaCl] in container "A" (an amount sufficient to fill the salt container up to the rim) using the special funnel supplied (see figure below).



- Remove any traces of salt from the filling hole, the container thread and the closing cap seal.
- Refit the cap of container "A", turning it clockwise and making sure it is tight.



**NOTE!**

The message **SAL End** may appear for several wash cycles even after topping-up the salt, as the salt must circulate in the entire system. Correct operation of the dishwasher is not, however, affected.

## K TROUBLESHOOTING

### K.1 Alarms

Anomaly	Type of anomaly	Possible causes	Actions
<b>A1</b>	NO WATER	The tap is close. The water inlet filter is clogged. Too low pressure in hydraulic circuit. Overflow not inserted (only for appliances without drain pump).	Open the tap. Clean the water inlet filter. Check the minimum mains pressure. Insert properly the overflow.
<b>B1</b>	INEFFICIENT DRAINAGE	Overflow not removed. The waste outlet pipe and/or the overflow aperture obstructed.	Remove the overflow. Remove any obstruction from the waste outlet pipe and/or the overflow aperture.
<b>B2</b>	TANK WATER LEVEL TOO HIGH	The waste outlet pipe and/or the overflow aperture obstructed.	Remove any obstruction from the waste outlet pipe and/or the overflow aperture.
<b>C1 – C8</b>			CALL THE SERVICE CENTRE
<b>E1 – E8</b>		The appliance continues to operate, but appropriate checks by a technician are recommended.	CALL THE SERVICE CENTRE
<b>F21 – F22<sup>1</sup></b>		Resin regeneration cycles are not performed. The appliance continues to operate without water softener.	CALL THE SERVICE CENTRE

1. Only for appliances with incorporated continuous water softener.





CE