

Glass and cup washer for bars



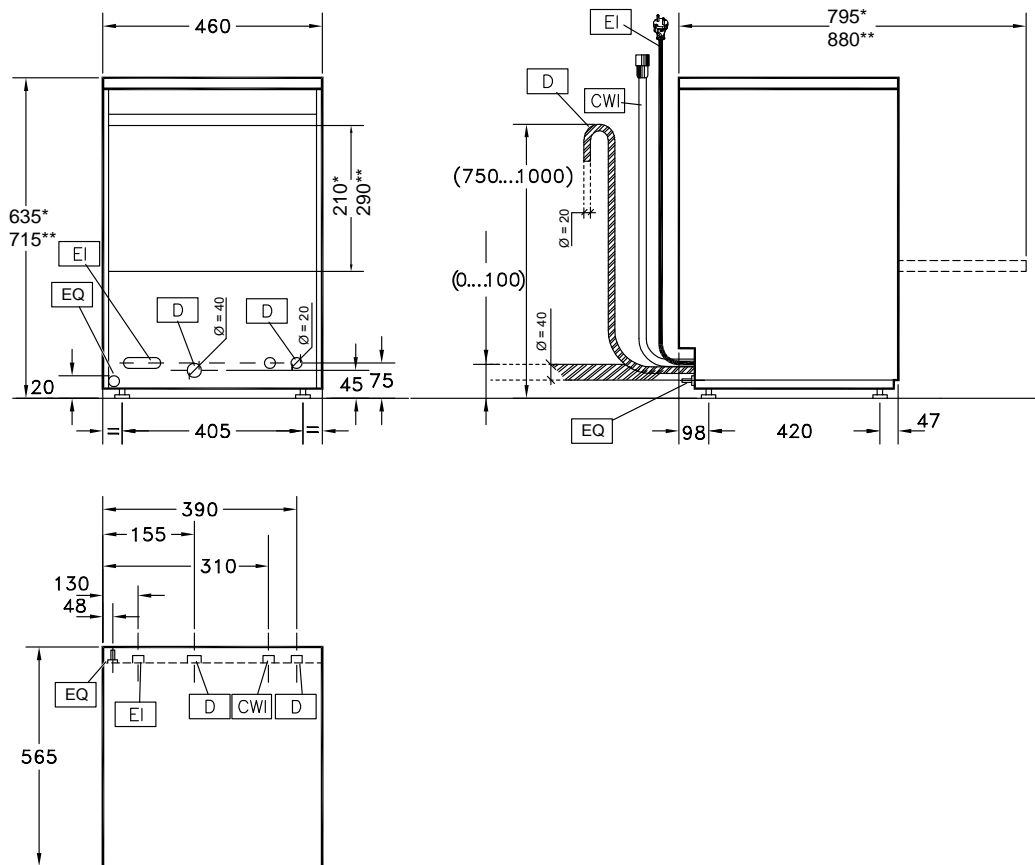
EN Installation manual *



*Original instructions

59566V101- 2021.07

Installation diagram



* = Short version

** = Small version

EI = Power supply entry

CWI = Cold water Inlet pipe with $\varnothing = 3/4"$ G fittings


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 machine.

Visit our website www.electroluxprofessional.com and open the **Support** section to:

 Register your product

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

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

The following must not be considered a long and exacting list of warnings, but rather a set of instructions suitable for improving machine 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 machine 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 machine'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 machine, regarding its use and maintenance.

The manual must be available to operators and carefully kept in the place where the machine 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 machine 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 machine. During all stages of machine use, always respect the current regulations on safety, work hygiene and environmental protection. It is the user's responsibility to make sure the machine 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 machine. Machine operators and maintenance personnel must be able to easily find and consult it at any time.

Contents

A	SAFETY INFORMATION	6
A.1	General information	6
A.2	General safety	6
A.3	Personal protection equipment	7
A.4	Transport, handling and storage	7
A.5	Installation and assembly	8
A.6	Water connection	8
A.7	Electrical connection	8
A.8	Machine cleaning and maintenance	9
A.9	Service	9
A.10	Disposal of packing	10
A.11	Machine disposal	10
B	GENERAL INFORMATION	10
B.1	Introduction	10
B.2	Definitions	10
B.3	Machine and Manufacturer's identification data	10
B.4	How to identify the technical data	11
	B.4.1 How to interpret the factory description	11
B.5	Type reference	11
B.6	Responsibility	11
B.7	Copyright	12
B.8	Keeping the manual	12
B.9	Recipients of the manual	12
C	TECHNICAL DATA	12
C.1	Main technical characteristics	12
C.2	Characteristics of power supply cable	13
C.3	Characteristics of power supply	13
D	TRANSPORT, HANDLING AND STORAGE	13
D.1	Introduction	13
D.2	Transport: Instructions for the carrier	14
D.3	Handling	14
	D.3.1 Procedures for handling operations	14
	D.3.2 Shifting	14
	D.3.3 Placing the load	14
D.4	Storage	14
D.5	Unpacking	14
E	INSTALLATION AND ASSEMBLY	14
E.1	Introduction	14
E.2	Customer responsibilities	14
E.3	Characteristics of the installation place	14
E.4	Positioning	14
E.5	Disposal of packing	15
E.6	Plumbing connections	15
E.7	Plumbing circuits	16
E.8	Electrical connections	17
E.9	Safety devices	17
E.10	Detergent/rinse aid dispensers and prearrangements	17
F	CONTROL PANEL DESCRIPTION	18
F.1	Control panel description	18
F.2	Basic Controls	19
G	COMMISSIONING	20
G.1	Preliminary checks, adjustments and operational tests	20
H	BASIC MACHINE SETUP	20
H.1	Manual activation	20
H.2	Setting the dispensers	20
	H.2.1 Peristaltic dispenser	20
	H.2.2 Rinse-aid diaphragm dispenser	21
I	INCORPORATED WATER SOFTENER	21
I.1	Regeneration cycle	21
J	TROUBLESHOOTING	23
J.1	Alarms	23

A SAFETY INFORMATION

A.1 General information

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 machine 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.
- 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 machine's service life.

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

- 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).
- 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).
- 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:
 - 1.8 bar [180 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 ▽.
- 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 ▽) 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.

B GENERAL INFORMATION

B.1 Introduction

Given below is some information regarding the intended use of this appliance, its testing, and a description of the symbols used (that identifies the type of warning), the definitions of terms used in the manual and useful information for the appliance user.

B.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.

B.3 Machine and Manufacturer's identification data

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

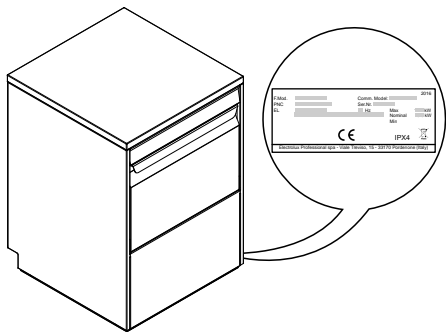
F.Mod.	_____	Comm. Model:	_____	2017
PNC	_____	Ser.Nr.	_____	
EL	_____	Hz	_____	Max _____ kW
Type ref.	_____	Nominal	_____	_____ kW
		Min	_____	_____ kW
		IP _____		
Electrolux Professional spa - Viale Treviso, 15 - 33170 Pordenone (Italy)				

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
230V 1N~	power supply voltage
—	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.

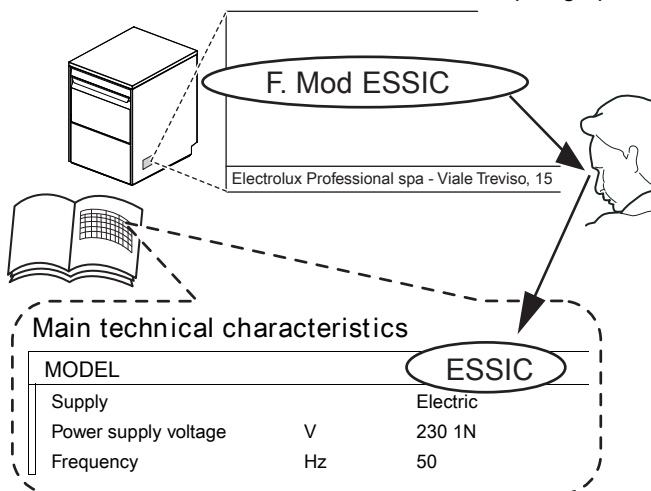


NOTE!

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

B.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 C TECHNICAL DATA paragraph.



B.4.1 How to interpret the factory description

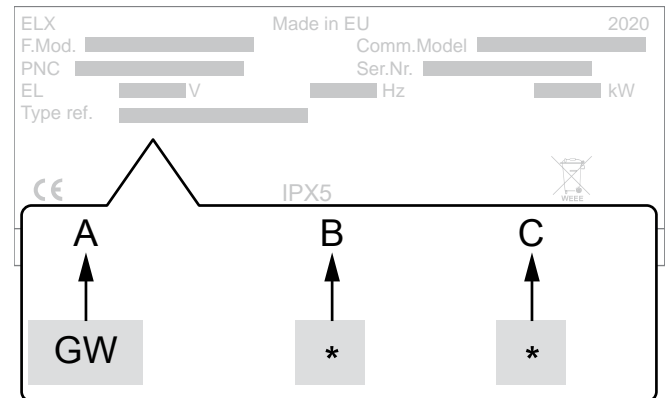
The factory description on the dataplate has the following meaning (some examples are given below):

(1)	(2)	(3)	(4)	(5)	(6)	(7)	8
E	SS	I	C				
Z	SS	I	C	W	P		
Z	S	DI	A	C	G		
E	S	DI	C	W	P	B	U

(1) Brand	E = Electrolux Professional, Z = Zanussi, V = Veetsan, N = To brand, X = kXt.
(2) Dimension	SS = Short version S = Small version

(3) Type of insulation	I = Single insulation DI = Double insulation
(4) Rinsing system	A = Atmospheric Empty = Pressure
(5 - 8) Options	3 = Three phases 6 = 60 Hz B = Rinse booster pump C = Cold rinse D = Detergent pump installed P = Drain pump installed G = Detergent and drain pumps installed W = Water Softener installed MS = Multi rack support TL = Thermal Label compliant U = UK plug

B.5 Type reference



Legend

A	Type of appliance • Glass washer dishwasher
B	Plug type • 0 = without plug • 1 = Shuko plug (plug type F) • 2 = UK plug (plug type G)
C	Architecture type • 0 = Electromechanical • 1 = Electronic

B.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 machine operation and invalidates the original manufacturer warranty);
- operations carried out by non-specialised personnel;
- unauthorized modifications or operations;
- missing, lack or inadequate maintenance;
- improper machine use;
- unforeseeable extraordinary events;
- use of the machine 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.

B.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.

B.8 Keeping the manual

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

B.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).

C TECHNICAL DATA

C.1 Main technical characteristics

Model		ESIC ESICG VSICG	ESSIC ZSSIC ESDICG ZSDICG ZSIC XSICGB	ESSICW... ZSSIC... ESICW... ZSICW... NSICW... VSICW... ESDICW... ZSDICW...	ESICWP6 ESICWPB6
Supply voltage:		200 - 240V 1N~	220 - 240V 1N~	220 - 240V 1N~	230V 1N~ 220 - 240V 1N~ [Only for model ESICWPB6]
Convertible to:		-	-	-	-
Frequency	Hz	50	50	50	60
Max. power	kW	3.3	3.3	3.3	3.3
Boiler heating elements	kW	3	3	3	3
Tank heating elements	kW	0.8	0.8	0.8	0.8
Water supply pressure	bar [kPa]	1.8 [180] 3 [300]	1.8 [180] 3 [300]	1.8 [180] 3 [300]	1.8 [180] 3 [300]
Water supply temperature	°C [°F]	10 - 55 [50 - 131]	10 - 55 [50 - 131]	10 - 55 [50 - 131]	10 - 55 [50 - 131]
Water supply hardness	°f/d/°e	14/8/10 max	14/8/10 max	48/27/33.7 max	48/27/33.7 max
Electric conductivity of water	µS/cm	< 400	< 400	< 400	< 400
Concentration of chlorides in water	ppm	< 20	< 20	< 20	< 20
Hot rinse cycle water consumption	l	2.3	2.3	2.3	2.3
Cold rinse cycle water consumption	l	1.8	1.8	1.8	1.8
Boiler capacity	l	5	5	5	5
Tank capacity	l	6	6	6	6
Standard cycle time with water supply at 50°C.	sec.	120 - 300 - 120	120 - 300 - 120	120 - 300 - 120	120 - 300 - 120
Legal noise level Leq ¹	dB(A)	LpA: 59.6dB - KpA: 1.5dB			
Protection rating		IPX4			
Power supply cable		H07RN-F			

1. The noise emission values have been obtained according to EN ISO 11204.

Model	ESDICGTL	ZSICGMS VSICGBMS	ESDIACG ZSDIACG	ESSICP3 ESICP3 ESDICG3
Supply voltage:	220 - 240V 1N~	220 - 240V 1N~	220 - 240V 1N~	400V 3N~
Convertible to:	-	-	-	-

Model		ESDICGTL	ZSICGMS VSICGBMS	ESDIACG ZSDIACG	ESSICP3 ESICP3 ESDICG3
Frequency	Hz	50	50	50	50
Max. power	kW	3.3	3.3	3.3	4.8
Boiler heating elements	kW	3	3	3	4.5
Tank heating elements	kW	0.8	0.8	0.8	0.8
Water supply pressure	bar [kPa]	1.8 [180] 3 [300]	1.8 [180] 3 [300]	0.5 [50] 7 [700]	1.8 [180] 3 [300]
Water supply temperature	°C	10 - 55 [50 - 131]	10 - 65 [50 - 149]	10 - 55 [50 - 131]	10 - 55 [50 - 131]
Water supply hardness	°f/°d/°e	14/8/10 max	14/8/10 max	14/8/10 max	14/8/10 max
Electric conductivity of water	µS/cm	< 400	< 400	< 400	< 400
Concentration of chlorides in water	ppm	< 20	< 20	< 20	< 20
Hot rinse cycle water consumption	l	2.3 for cycle 1 4 for cycle 2 3 for cycle 3	2.3	2.3	2.3
Cold rinse cycle water consumption	l	1.8	1.8	—	1.8
Boiler capacity	l	5	5	5	5
Tank capacity	l	6	6	6	6
Standard cycle time with water supply at 50°C.	sec.	120 - 300 - 120	60 - 120 - 66	120 - 180 - 300	120 - 300 - 120
Legal noise level Leq ¹	dB(A)	LpA: 59.6dB - KpA: 1.5dB			
Protection rating		IPX4			
Power supply cable		H07RN-F			

1. The noise emission values have been obtained according to EN ISO 11204.

C.2 Characteristics of power supply cable

	400 – 415V 3N		220 – 240V 1N	
	C	S	C	S
3.35 kW	-	-	3x2.5 mm ²	20A 1P + N
5.35 kW	5x1.5 mm ²	16A 3P + N	3x4 mm ²	32A 1P + N
C = Power supply cable S = On/Off switch				

C.3 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).

D TRANSPORT, HANDLING AND STORAGE



WARNING

Refer to “*Safety Information*”.



CAUTION

D.1 Introduction

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

The machine 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.

D.2 Transport: Instructions for the carrier



IMPORTANT

The transported load can shift:

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

D.3 Handling

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

D.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 machine, 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.

D.3.2 Shifting

The operator must:

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

D.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.

D.4 Storage

The machine 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 machine is stored must have a flat support surface to avoid deforming the machine 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.

D.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.

E INSTALLATION AND ASSEMBLY



WARNING


Refer to “*Safety Information*”.

E.1 Introduction

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

E.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 (C *TECHNICAL DATA* and C.3 *Characteristics of power supply*);
- the equipotential connection  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 C *TECHNICAL DATA* and in the paragraph E.6 *Plumbing connections*;

E.3 Characteristics of the installation place

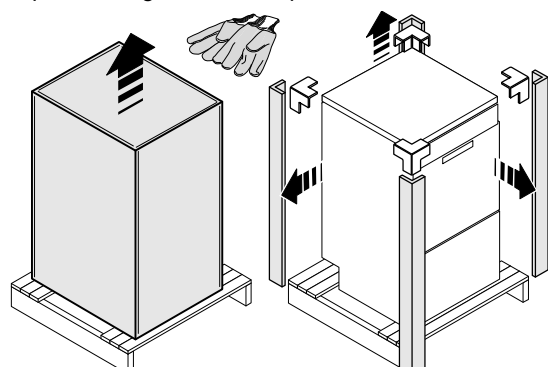
The machine is designed for installation in professional and not domestic-type kitchens. Water collection traps/ metal grates must be arranged in the floor at the machine discharges (see the *Installation diagram*), possibly replaceable with a single water trap sized for a flow rate of at least 3 l/s.

E.4 Positioning

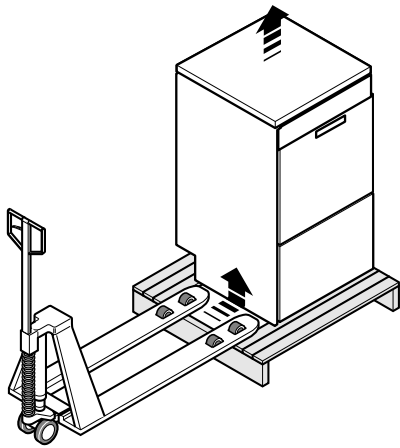
The machine must be taken to the place of installation and the packing base removed only when being installed.

Arranging the machine:

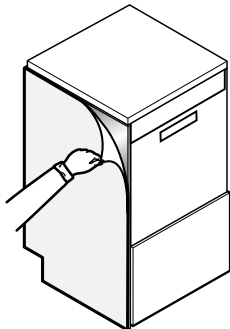
- Wear protective gloves and unpack the machine.



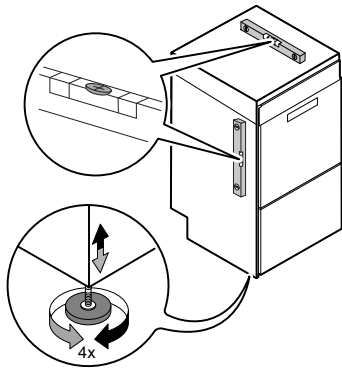
- Lift the equipment with a lift truck, remove the base and position it the place of use.



- 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.



E.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.

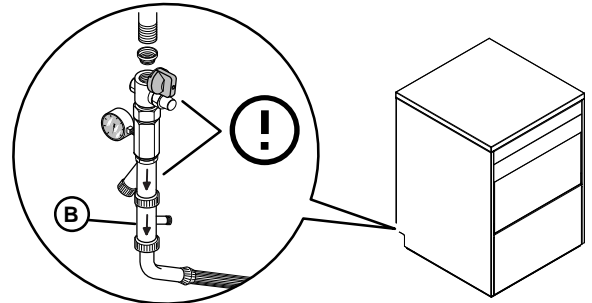
They can be safely kept, recycled, or burned in an appropriate waste incineration plant. Recyclable plastic parts are marked as follows:

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

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

E.6 Plumbing connections

- Connect the appliance water supply pipe "W1" (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 1.8 bar [180 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.

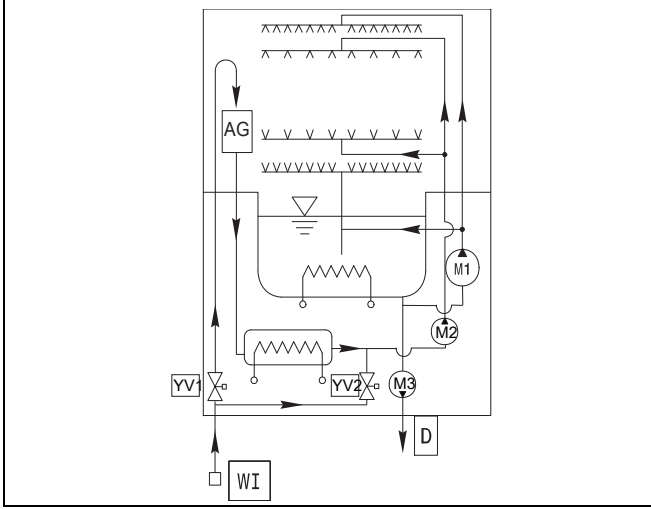


IMPORTANT

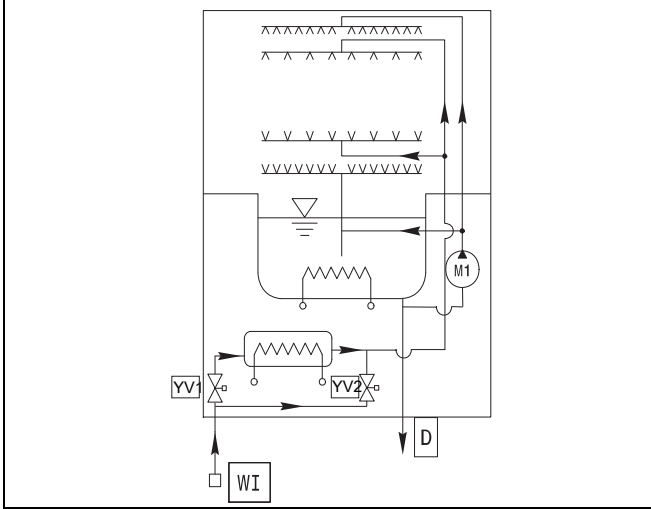
Watermark labelled appliances must be installed in accordance with Plumbing Code of Australia (PCA).

E.7 Plumbing circuits

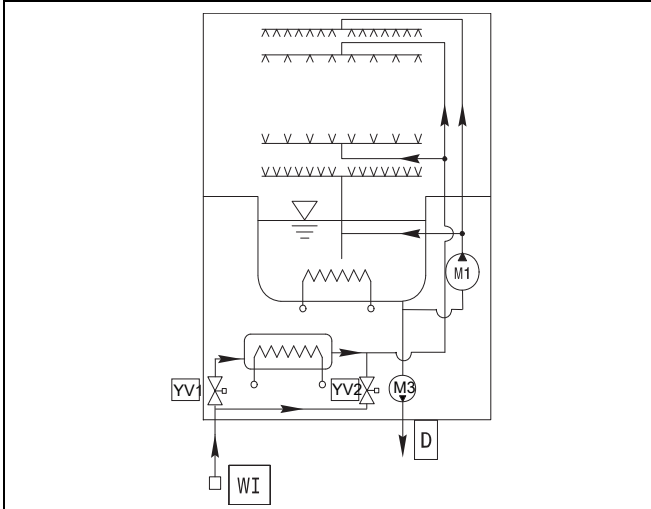
Appliance with atmospheric water supply - with drain pump - with cold rinse



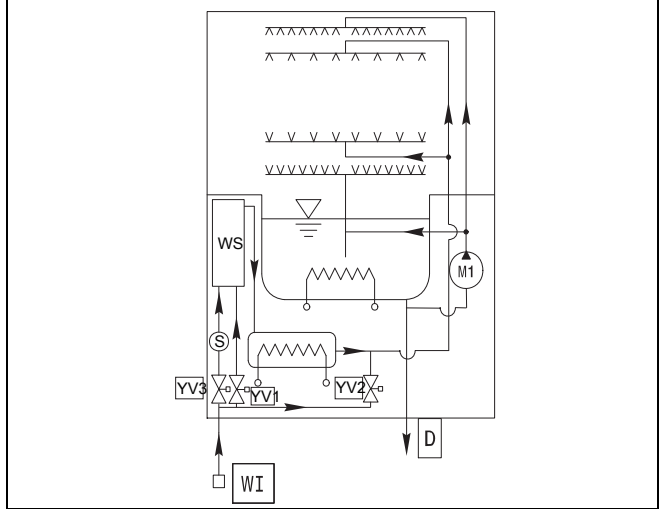
Appliance with pressure water supply - without drain pump - with cold rinse



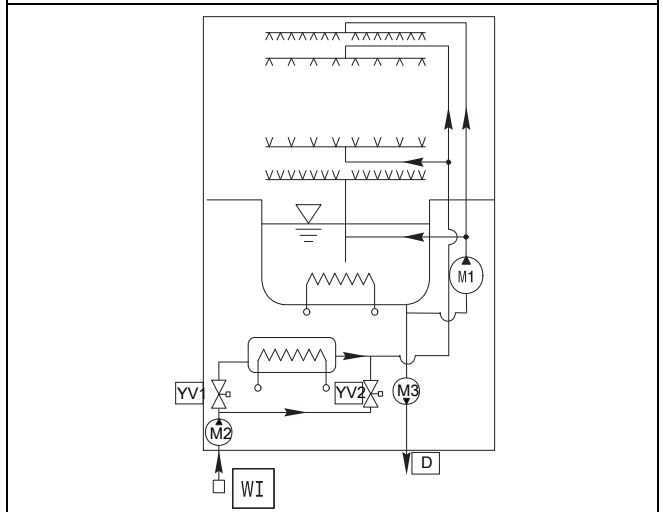
Appliance with pressure water supply - with drain pump - with cold rinse



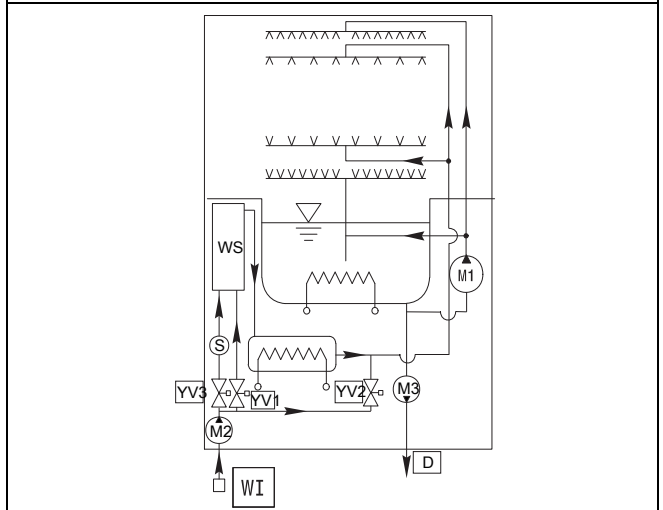
Appliance with pressure water supply - without drain pump - with water softener - with cold rinse

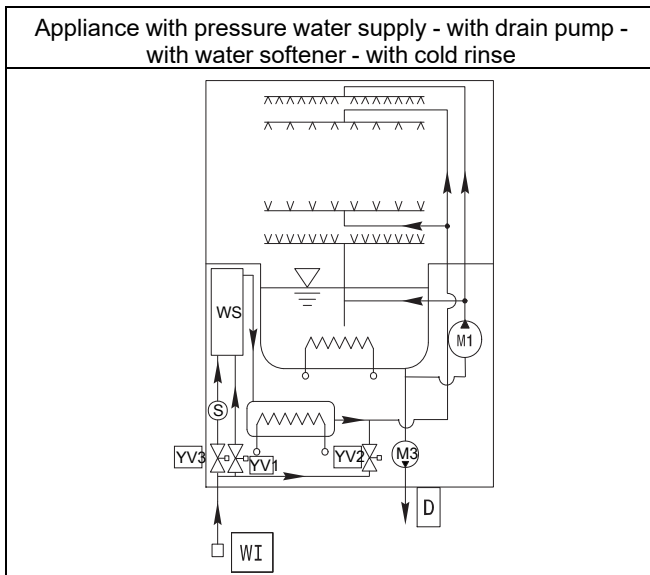


Appliance with pressure water supply - with drain pump - with rinse booster pump - with cold rinse



Appliance with pressure water supply - with drain pump - with rinse booster pump - with water softener - with cold rinse





LEGEND

WI = Water inlet	S = Salt Vessel
AG = Air Gap	WS = Water softener
D = Drain	YV1 = Filling solenoid valve
M1 = Wash pump	YV2 = Cold rinse solenoid valve
M2 = Booster pump	YV3 = Regeneration solenoid valve
M3 = Drain pump	

E.8 Electrical connections

- The earth wire from the terminal board side must be longer (max 20 mm) than the phase wires.
- The plug must be accessible after positioning the appliance in the place of installation. Make sure the plug is not crushed by the appliance; in fact, a damaged power cable can overheat and catch fire or cause a short circuit.
- Make sure that the socket has an efficient earth contact.
- Connect the mains plug to the mains socket only at the end of the installation.
- Always use a correctly installed shockproof socket.
- Do not use multi-plug adapters and extension cables.
- Do not pull the mains cable to disconnect the appliance. Always pull the mains plug.
- Do not touch the mains cable or the mains plug with wet hands.
- The equipment must also be included in an equipotential system, whose connection is made by means of screw EQ (see the installation diagram) indicated by the symbol . The equipotential wire must have a section of at least 10 mm².
- Only for UK and Ireland: the appliance has a 13 A mains plug. If it is necessary to change the fuse in the mains plug, use a 13 A ASTA (BS 1362) fuse.

E.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.

E.10 Detergent/rinse aid dispensers and prearrangements



NOTE!

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.



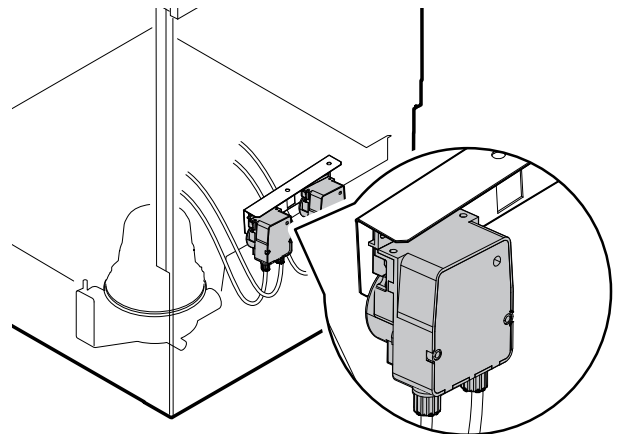
NOTE!

If the peristaltic dispensers are installed in the machine, the dosage of detergent/rinse aid is done automatically according to the desired concentration. The concentration of detergent/rinse aid depends on the type of product used and the hardness of the supply water (check the characteristics on the product label).

Dishwasher with incorporated peristaltic liquid detergent dispenser

1. The detergent pump dispenses about 0.9 g/s of detergent. At the first water filling of the day it delivers approx. 44 g of detergent in 45 seconds, to obtain a concentration of 2g/l. At each cycle the detergent pump "R" delivers approx. 6 g in 6 sec.

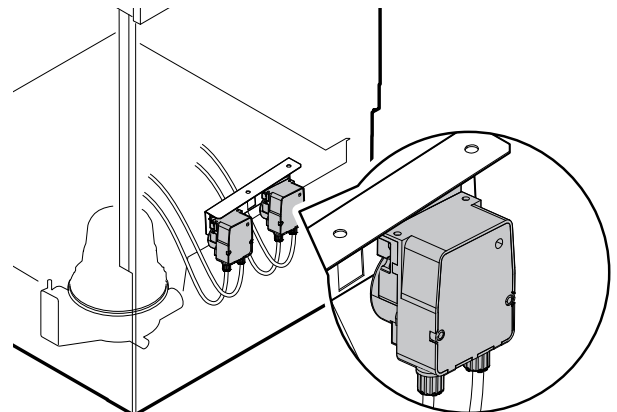
Dispenser operation time can be modified according to the instructions given in the next paragraph (H.2 *Setting the dispensers*). Insert the hose supplied in the detergent container.



Dishwashers with incorporated peristaltic rinse-aid dispenser pump

2. The rinse-aid pump 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 (H.2 *Setting the dispensers*). Insert the hose supplied in the rinse-aid container.

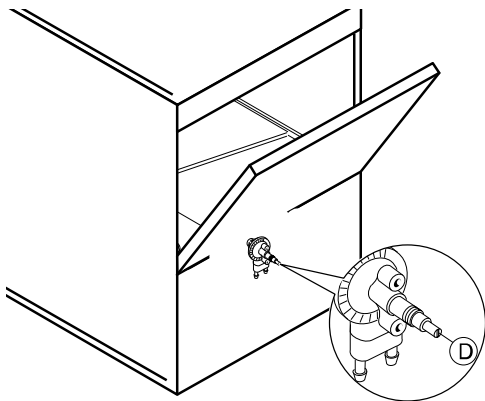


Dishwashers with incorporated rinse-aid diaphragm dispenser pump

3. The pump is installed in appliances with pressure hydraulic circuit.

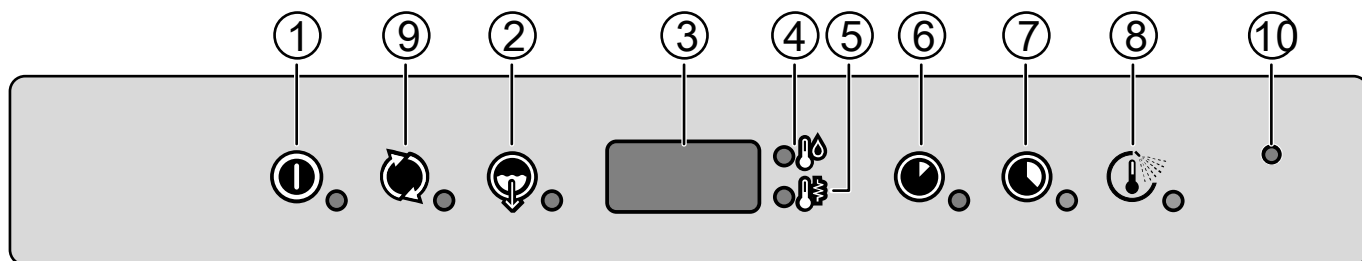
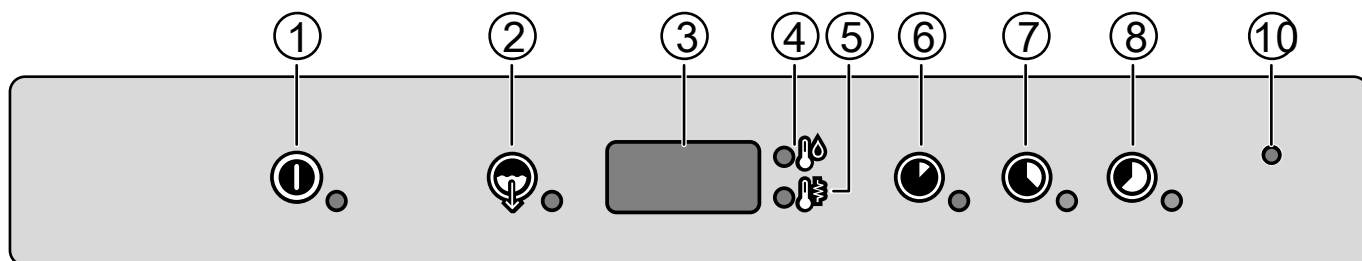
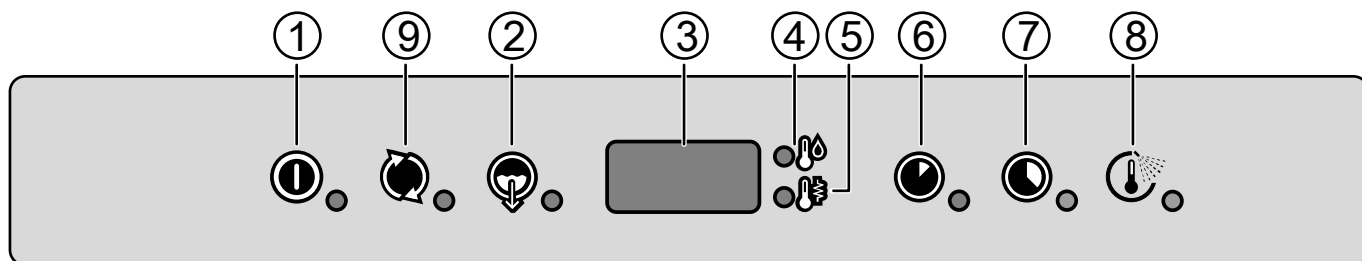
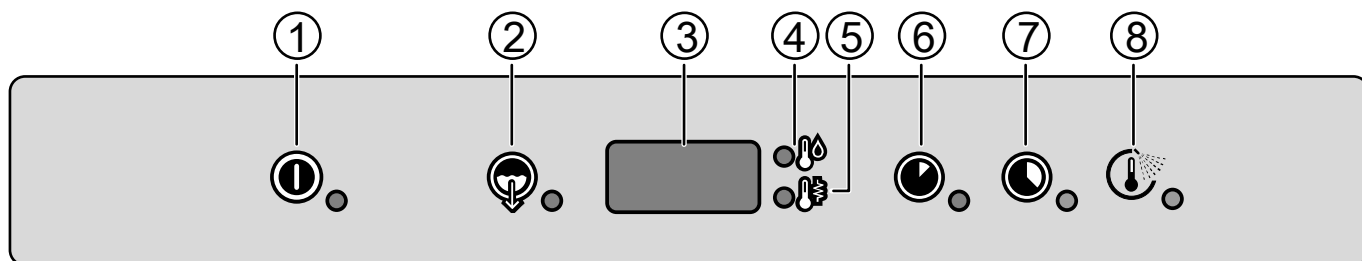
Dispensed amounts may be changed according to the instructions given in the paragraph below.

Insert the supplied hose into the rinse-aid container.



F CONTROL PANEL DESCRIPTION

F.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 with cold rinse or wash cycle 3 (depending on the model)
9	Regeneration cycle (depending on the model)
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.

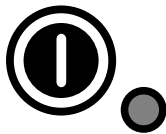
The tank temperature is displayed during the wash phase and the boiler temperature during the rinse phase.

F.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.

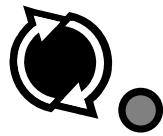
On/Off

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



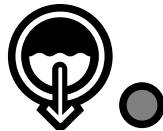
Regeneration cycle

When on the display appears “rEG”, press this button to activate the regeneration cycle of the water continuous softener. Please refer to chapter I.1 *Regeneration cycle*.



Drain / self-cleaning cycle

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



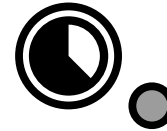
Wash cycle 1

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.



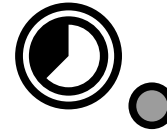
Wash cycle with cold rinse

This button starts **Wash cycle with cold rinse** at the end of the wash cycle. When the cycle is selected, the button indicator is lit up. This cycle is recommended for glasses.



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.

G COMMISSIONING

G.1 Preliminary checks, adjustments and operational tests



WARNING

These operations must only be carried out by specialized 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

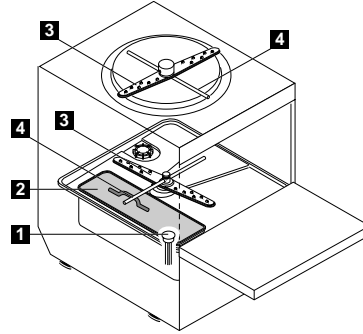
Before starting the machine:

- 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 (C *TECHNICAL DATA*);

- check correct connection of the water supply and drain pipes (see paragraph E.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 "1", the tank filter "2" (depending of the model), the upper and lower wash arm "3" and the upper and lower wash arm "4" are correctly fitted (see picture below).



H BASIC MACHINE SETUP

H.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.



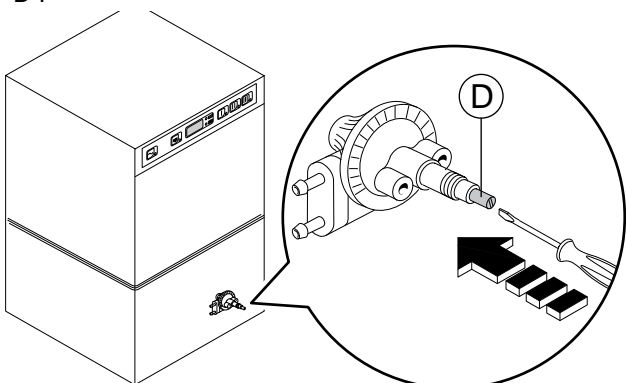
Detergent dispenser



Rinse-aid dispenser



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



H.2 Setting the dispensers

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

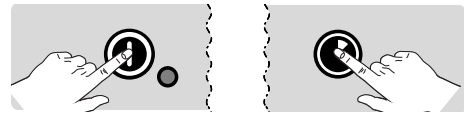
Legend

	Increase
	Decrease
	Confirm or select next parameter

H.2.1 Peristaltic dispenser

Sequential start

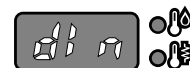
1. Press the indicated buttons simultaneously for 5 seconds:



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:



i 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.

i NOTE!
For connections, see the wiring diagram.

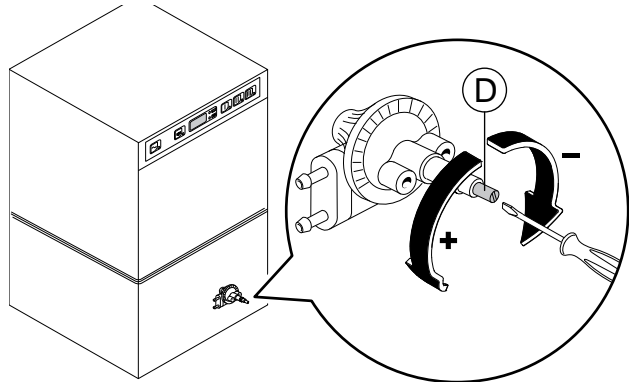
Example

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.

H.2.2 Rinse-aid diaphragm dispenser

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



i 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.

I INCORPORATED WATER SOFTENER

I.1 Regeneration cycle

To reduce problems caused by the presence of calcareous substances in the water supply, a water softener device has been fitted in the rinse circuit of the dishwasher. This device removes the calcareous substances from the feed-water, supplying decalcified water necessary for the washing.

For the correct operation of the water softener, the periodical regeneration of the resins, whose frequency depends on the number of washing cycles and water hardness, must be carried out.

This dishwasher has a built-in counter which keeps track of how many wash cycles can be carried out before a regeneration cycle must take place.

The relevant water supply company will be able to provide all the instructions regarding the water hardness.

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

Water hardness in °fH, °dH, °cH / Regeneration frequency in nr of cycles

°fH	°dH	°cH	Nr
9 – 15	5.6 – 8.4	9 – 15	200
16 – 20	9.0 – 11.2	9 – 15	140
21 – 25	11.8 – 14.0	9 – 15	100
26 – 30	14.6 – 16.8	9 – 15	70
31 – 35	17.4 – 19.6	9 – 15	50
36 – 40	20.2 – 22.4	25.3 – 28	30



NOTE!

The water softener device is factory-set to the value of 20 cycles since this is generally sufficient for most uses. During installation of the appliance, the installation technician should nonetheless check the correct setting of this value.

The regeneration of the resins is carried out by means of a special regeneration cycle with coarse salt, following the instructions described hereinafter.



CAUTION

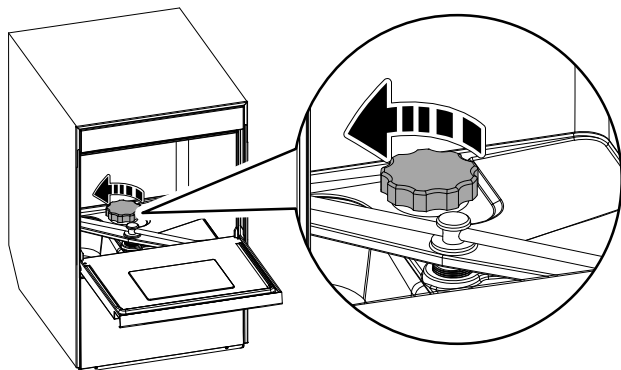
Only use coarse salt with a purity level of 99.8% NaCl. The use of salt with a lower purity level can cause clogging of the salt container filter and malfunctioning of the water softener.

Activation of the regeneration cycle

- When the message “REG” appears on the display, activate the cycle to regenerate the resins.



- Open the salt container.



- Fill it with salt for softeners or coarse salt up to 2-3 cm from the upper edge (make sure the container is filled with water before pouring any salt inside).

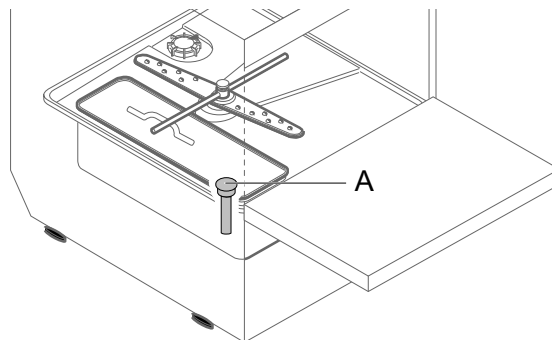
Clean the thread of the container from any salt deposits before closing the cap. Remove the salt from the basin if it overflows the container.



CAUTION

Only salt may be placed in the salt container. 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.

- Open the door and remove the overflow “A”.



- Close the door.
- Start the regeneration cycle by pressing the REGENERATION cycle button for at least 5 seconds.



CAUTION

Do not open the salt container during the entire regeneration cycle as the saline solution could spill out. During this process it is normal to hear a metallic sound for a short period.

- During the regeneration cycle the display alternately blinks two symbols: “0” and “[]”:



- After about 30 minutes, 3 beeps indicate the end of the regeneration cycle and “END” blinks on the display:



- Replace the overflow.
- Close the door.

The dishwasher is now ready to start the normal working functions.



IMPORTANT

If the regeneration cycle is accidentally started, it can be switched off by pressing the regeneration cycle button for at least 5 seconds.

The regeneration cycle is temporarily stopped:

- in the event of a power failure,
- if the door is opened,
- if the machine is switched off.

When normal conditions are reinstated, the symbols “0” and “[]” will flash alternately on the display.

J TROUBLESHOOTING

J.1 Alarms

Anomaly	Type of anomaly	Possible causes	Actions
A1	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.
B1	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.
B2	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.
C1 – C8			CALL THE SERVICE CENTRE
E1 – E8		The appliance continues to operate, but appropriate checks by a technician are recommended.	CALL THE SERVICE CENTRE
F21 – F22¹		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