

Glass and cup washer for bars



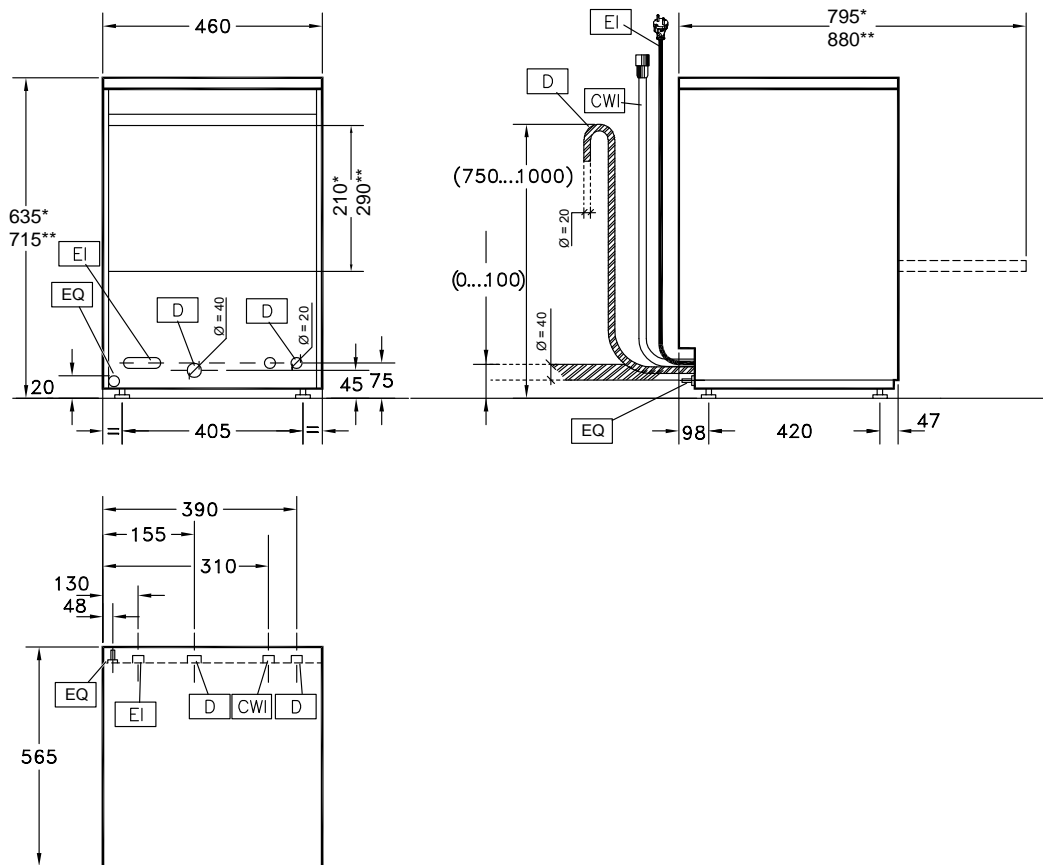
EN Installation manual *



*Original instructions

59566V001- 2021.07

Installation diagram



* = Short version

** = Small version

EI = Power supply entry

CWI = Cold 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 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	12
C.3	Characteristics of power supply	12
D	TRANSPORT, HANDLING AND STORAGE	13
D.1	Introduction	13
D.2	Transport: Instructions for the carrier	13
D.3	Handling	13
	D.3.1 Procedures for handling operations	13
	D.3.2 Shifting	13
	D.3.3 Placing the load	13
D.4	Storage	13
D.5	Unpacking	13
E	INSTALLATION AND ASSEMBLY	13
E.1	Introduction	13
E.2	Customer responsibilities	13
E.3	Characteristics of the installation place	14
E.4	Positioning	14
E.5	Disposal of packing	14
E.6	Plumbing connections	14
E.7	Plumbing circuits	15
E.8	Electrical connections	15
E.9	Safety devices	15
E.10	Detergent/rinse aid dispensers and prearrangements	16
	E.10.1 Hoses connection to detergent and rinse aid containers	16
F	CONTROL PANEL DESCRIPTION	16
F.1	Control panel description	16
G	COMMISSIONING	17
G.1	Preliminary checks, adjustments and operational tests	17
H	TROUBLESHOOTING	18
H.1	General troubleshooting	18

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];
- 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:

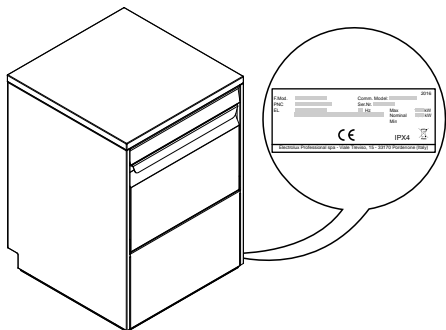
F.Mod.	Comm. Model:	2017
PNC	Ser.Nr.	
EL	Hz	Max kW
Type ref.	Nominal kW	Min kW
  		
Electrolux Professional spa - Viale Treviso, 15 - 33170 Pordenone (Italy)		

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.

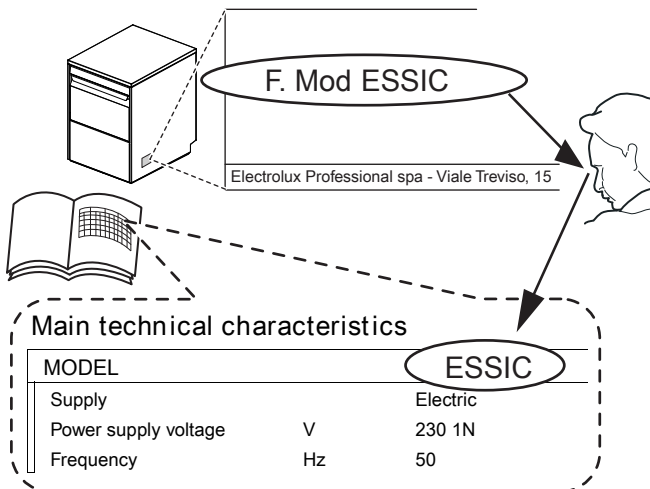


NOTE!

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

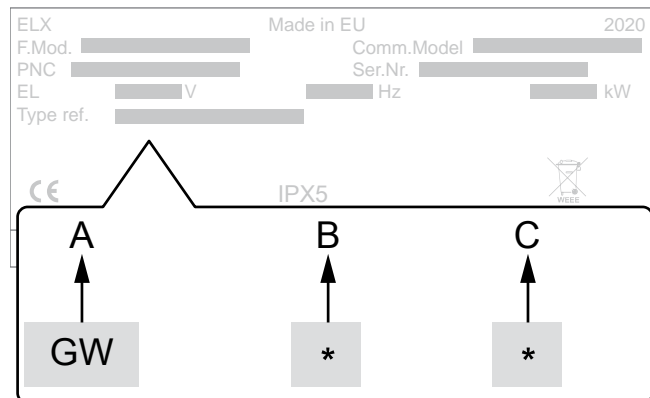
The factory description on the dataplate has the following meaning (some examples are given below):

(1)	(2)	(3)	(4)	(5)	(6)	(7)
E	S	I				
Z	S	I	G			
E	S	I	C	B	P	6

(1) Brand	E = Electrolux Professional, Z = Zanussi, V = Veetsan.
(2) Dimension	S = Small version

(3) Type of insulation	I = Single insulation
(4 - 7) Options	6 = 60 Hz B = Rinse booster pump C = Cold rinse D = Detergent pump installed P = Drain pump installed G = Detergent and drain pumps installed 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		ESI ZSI	ESIG	ESIGU VSIG ZSIG	ESICBP6
Supply voltage:		230V 1N~	230V 1N~	230V 1N~	220 - 230V 1N~
Convertible to:		-	-	-	-
Frequency	Hz	50	50	50	60
Max. power	kW	3.3	3.3	2.3	3.3
Boiler heating elements	kW	3	3	2	3
Tank heating elements	kW	0.8	0.8	0.8	0.8
Water supply pressure	bar [kPa]	1.8 bar [180 kPa] 3 bar [300 kPa]	1.8 bar [180 kPa] 3 bar [300 kPa]	1.8 bar [180 kPa] 3 bar [300 kPa]	1.8 bar [180 kPa] 3 bar [300 kPa]
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	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	2.3	2.3	2.3
Cold rinse cycle water consumption	l	-	-	-	2
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	120	120	60
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

	220 – 240V 1N	
	C	S
2.35 kW 3.35 kW	3x2.5 mm ²	20A 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*”.

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.



CAUTION

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*);
- adding 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

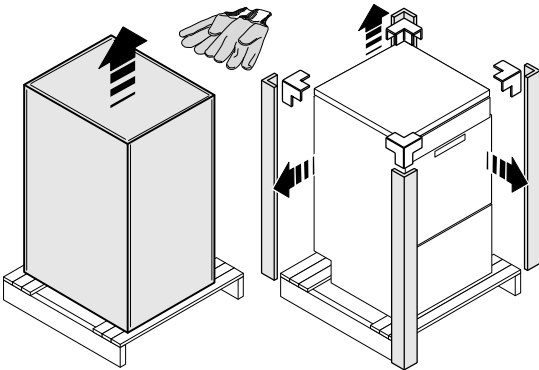
The machine is designed for installation in professional and not domestic-type kitchens. Water collection traps/ metal grates must be arranged in the floor at the machine discharges (see the *Installation diagram*), possibly replaceable with a single water trap sized for a flow rate of at least 3 l/s.

E.4 Positioning

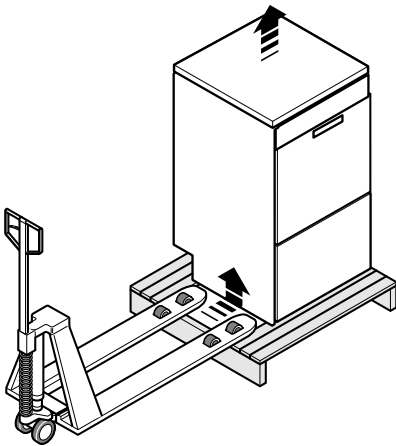
The machine must be taken to the place of installation and the packing base removed only when being installed.

Arranging the machine:

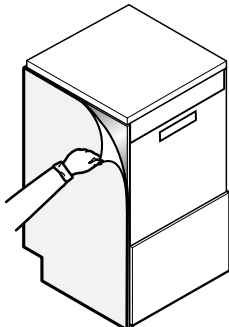
- Wear protective gloves and unpack the machine.



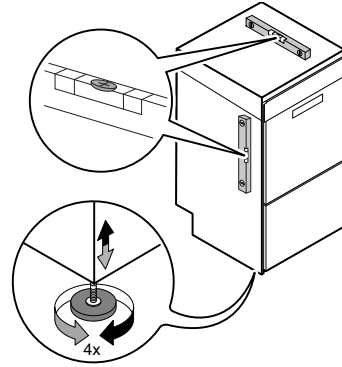
- Lift the equipment with a lift truck, remove the base and position it the place of use.



- 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.

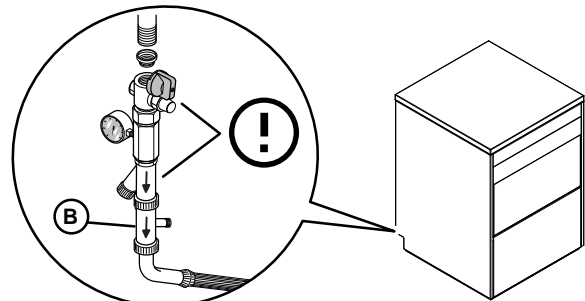
They can be safely kept, recycled, or burned in an appropriate waste incineration plant. Recyclable plastic parts are marked as follows:

	Polyethylene <ul style="list-style-type: none"> • Outer wrapping • Instructions bag
	Polypropylene <ul style="list-style-type: none"> • Straps
	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 "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 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.

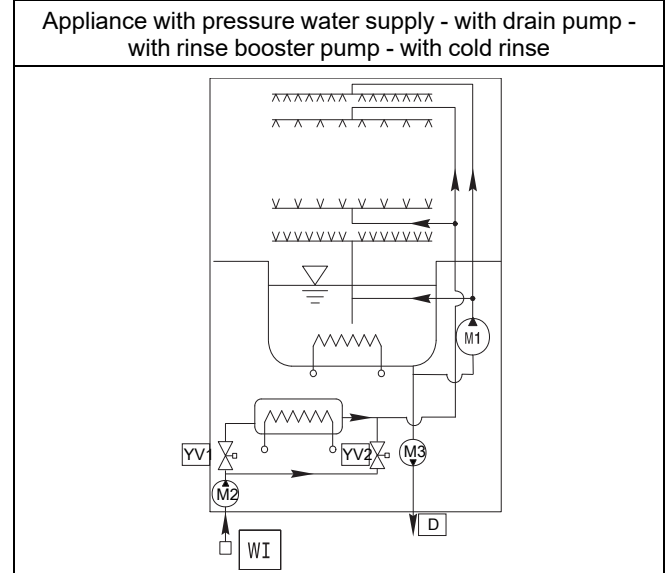
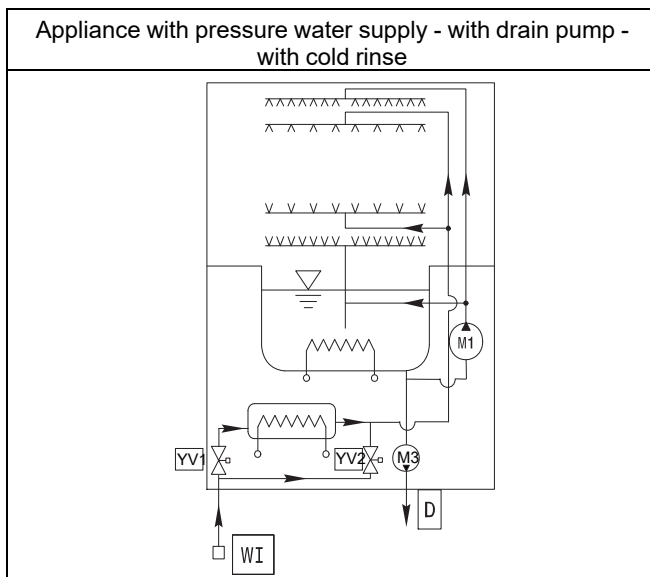
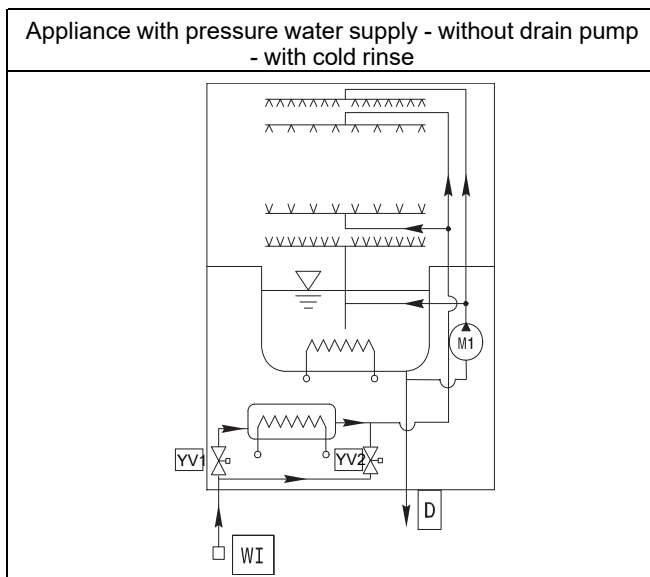
- On the model with drain pump: position the outlet pipe at a height anywhere between 750 mm and 1000 mm from the floor. Depending on the model, check that from 2 L to 3 L of water flow out of the outlet pipe during the rinse cycle.

! **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



LEGEND

WI	Water inlet
D	Drain
M1	Wash pump
M2	Booster pump
M3	Drain pump
YV1	Filling solenoid valve
YV2	Cold rinse solenoid valve

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



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.

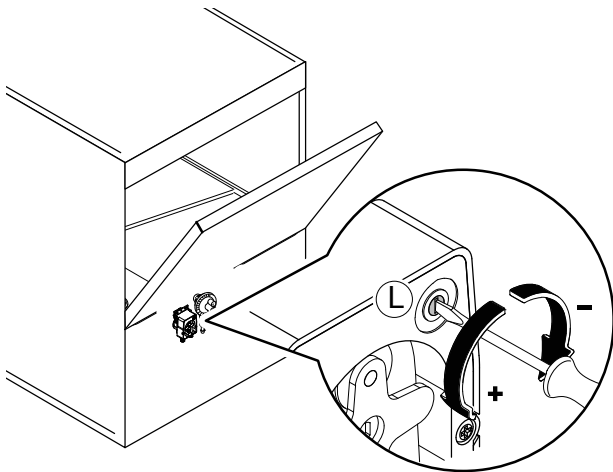


NOTE!

If the peristaltic dispensers are installed in the machine, the dosage of detergent is done automatically according to the desired concentration. The concentration of detergent 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 (depending on the model)

1. Adjust the screw "L" to set the required dose (see figure below). The adjustment of the amount of detergent delivered by the pump must carefully comply with that indicated by the detergent producer. This quantity is usually expressed in g./l and varies depending on the water hardness.

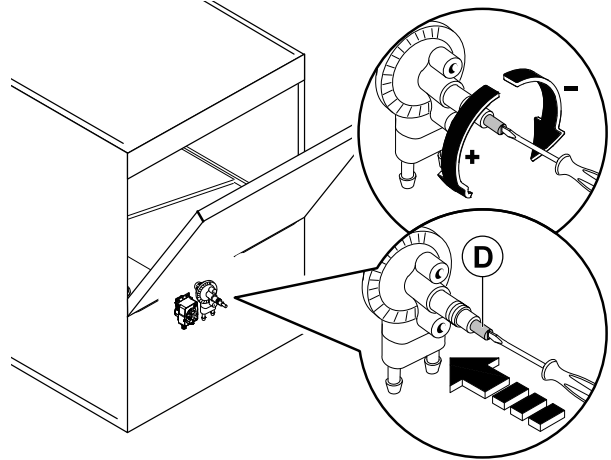


Dishwashers with incorporated rinse-aid diaphragm dispenser pump

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

To activate manually the diaphragm dispenser pump press screw "D".

To vary the dose, adjust the screw "D" as required.



IMPORTANT

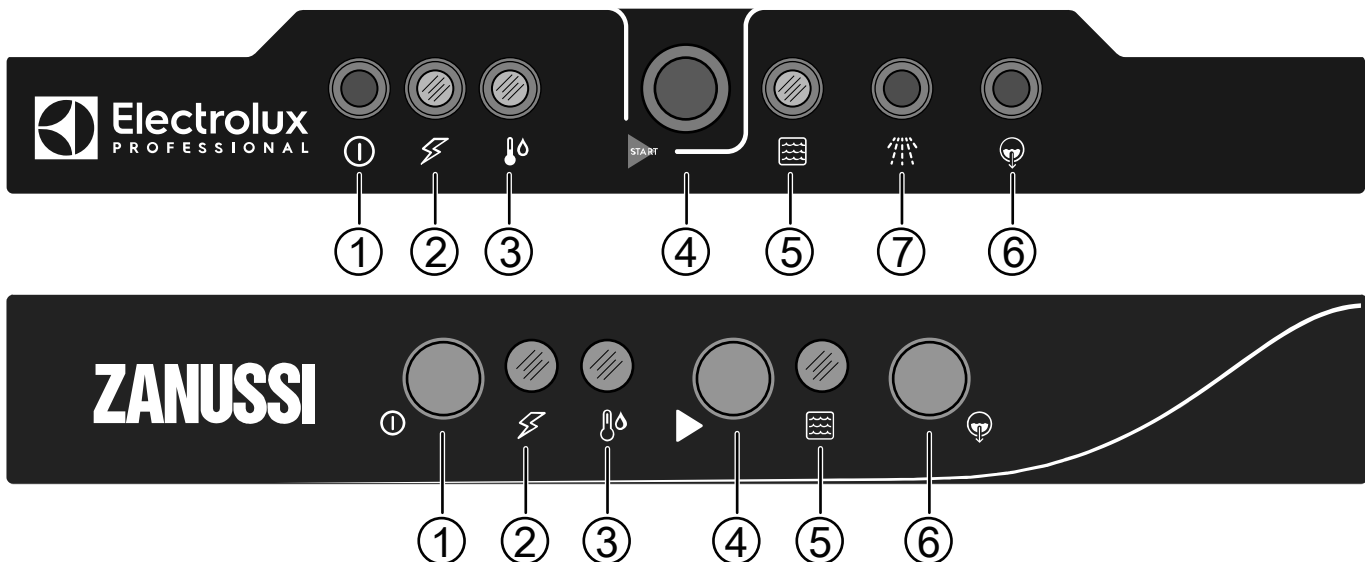
If changing to a different type of detergent or rinse aid (even the same brand), it is necessary to rinse the inlet and outlet pipes with clean water before connecting the new detergent/rinse aid container. Otherwise, the mixing of different types of detergent/rinse causes a crystallization, with possible breakage of the dosing pump. Failure to observe this instruction will void the warranty and relieve the manufacturer of any liability.

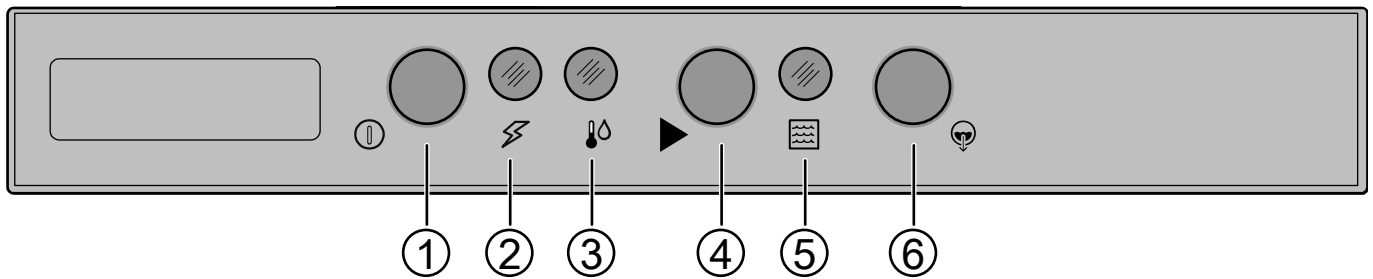
E.10.1 Hoses connection to detergent and rinse aid containers

- Cut the supplied hose in two parts.
- Fit the filter and the weight in one end of the suction hose and connect the other end to the inlet connection of the detergent pump. Fit the detergent injector in the hole in the tank.
- Connect the second hose between the outlet connection of the detergent pump and the injector. Put the hose with the filter and the weight into the detergent bin.

F CONTROL PANEL DESCRIPTION

F.1 Control panel description





- | | |
|---|--|
| 1 | ON/OFF button.
Press this button to activate the appliance. Press it again to deactivate. |
| 2 | ON indicator.
When the appliance is on, this indicator is lit up. |
| 3 | Water temperature indicator.
When the water in the tank and boiler reach the operating temperature, this indicator is lit up. |
| 4 | START button.
This button starts washing cycle. This cycle is recommended for washing normally dirty dishes. |

- | | |
|---|---|
| 5 | Wash cycle indicator.
This indicator is on, when you start the washing cycle. It is off, when the washing cycle is finished. |
| 6 | Drain button.
Press this button to drain the water of the washing tank. When the cycle is selected, the button indicator is lit up. This option is available only in the models with drain pump. |
| 7 | Cold rinse button (available depending on the model).
Press this button to activate a cold rinse at the end of the wash cycle. This option is recommended for glasses. |

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

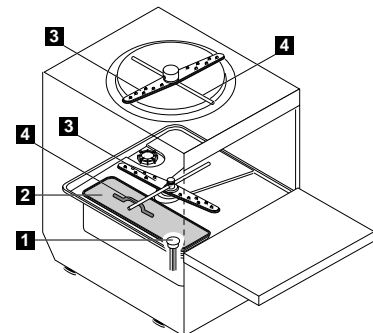
Before starting the machine:

- 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 TROUBLESHOOTING

H.1 General troubleshooting

Anomaly	Type of anomaly	Possible causes	Actions
The dishwasher does not start	Blocking	The dishwasher is not connected to the main power supply.	Check if the appliance main circuit breaker is in ON position.
		The door is opened.	Close the door
		The tap is close.	Open the tap.
		The water inlet filter is clogged.	Clean the water inlet filter.
		Too low pressure in hydraulic circuit.	Check the minimum mains pressure.
		Overflow not inserted (only for appliances without drain pump).	Insert properly the overflow.
The dishwasher does not wash well.	Loss of performance.	No scrape action before putting dishes in the racks	Scrape dishes before putting them in the racks.
		The wash arms are clogged by solid food remains. Residual food has not been removed from dishes.	Check if the wash jets are clogged by solid food remains.
		The wash arms are not properly installed.	Check the integrity of the wash arms. Remove and fit again the wash arms.
		The dishes are not correctly placed in the racks.	Check if the dishes are correctly placed in the racks.
		The dosing of detergent is not correct.	Call detergent and rinse aid service centre.
		The detergent tank is empty.	Check that there is detergent in the container and if necessary top it up.
		Detergent pump does not work.	Call detergent and rinse aid service centre.
		The wash tank suction filter is dirty.	Clean wash tank suction filter thoroughly.
Glasses and dishes are not dried properly.	Loss of performance.	The container of rinse aid is empty.	Check that there is rinse-aid in the container and if necessary top it up.
		Rinse aid pump does not work.	Call detergent and rinse aid service centre.
		The water temperature of the rinse module is low.	Call the service centre
		Foamy detergent present in the wash tank.	Check if the dishes were not immersed in foamy detergent (e.g. hand wash detergent) before being put in the dishwasher. Only use "non-foaming" products for professional dishwashers.
Condensation on glasses.	Loss performance.	The container of rinse aid is empty.	Check that there is rinse-aid in the container and if necessary top up.
		Rinse aid pump does not work.	Call detergent and rinse aid service centre.
Stains on the glasses.	Loss of performance.	Foamy detergent present in the wash tank.	Only use "non-foaming" products for professional dishwashers.
		The dosing of rinse aid is not correct.	Call detergent and rinse aid service centre.
		The hardness of the water is too high or too low.	Adjust the amount of detergent and rinse aid. Call detergent and rinse aid service centre.
Excessive foam in the tank.	Loss performance.	Residuals of food or detergent, used for manual prewash, remains in the dishes.	Remove residuals of food or detergent from the dishes.
		Wash water temperature is too low.	Call detergent and rinse aid service centre to set the temperature in according to the detergent specifications.
		Foamy detergent present in the wash tank.	Empty and refill the tank with water until the foam has been removed.

Anomaly	Type of anomaly	Possible causes	Actions
Smears or spots on the glasses.		Too much rinse-aid.	Reduce the amount of rinse-aid. Call detergent and rinse aid service centre.
Low pressure from wash arms.	Loss of performance	The tank filter is clogged. The wash pump filter is clogged. The water drainage hose is clogged. The wash pump does not work properly.	Clean the tank filter. Clean the wash pump filter. Call service centre. Call service centre.
Low pressure from rinse arms.	Loss of performance	The rinse arms are clogged. The water pressure after pressure reducer is less than 1 bar.	Clean the rinse arms. Call service centre.
The dishwasher is switched off, but the appliance continues to fill water.	Loss of performance	Inlet valve is damaged.	Close the water supply tap or taps and call service centre.
Wash cycle indicator is off.	Loss of performance	The water in the wash tank does not reach the set temperature.	Call service centre.
		The water in the boiler does not reach the set temperature.	Call service centre.
The wash pump does not work.	Blocking	The wash pump is clogged.	Call service centre.
The drain pump does not work.	Loss of performance	The drain pump is clogged.	Call service centre.

If the fault persists after carrying out the above checks, contact the Customer Care Service, remembering to specify:

- A. the type of fault;
- B. the appliance PNC (product number code);
- C. the Ser. No. (appliance serial number).



IMPORTANT

The appliance PNC and serial number are essential for identifying the type of appliance and date of manufacture.



NOTE!

For detailed information about the troubleshooting see the complete user manual in the web site.

CE