

Hood dishwasher



EN Installation manual *



NSF/ANSI 3 compliant

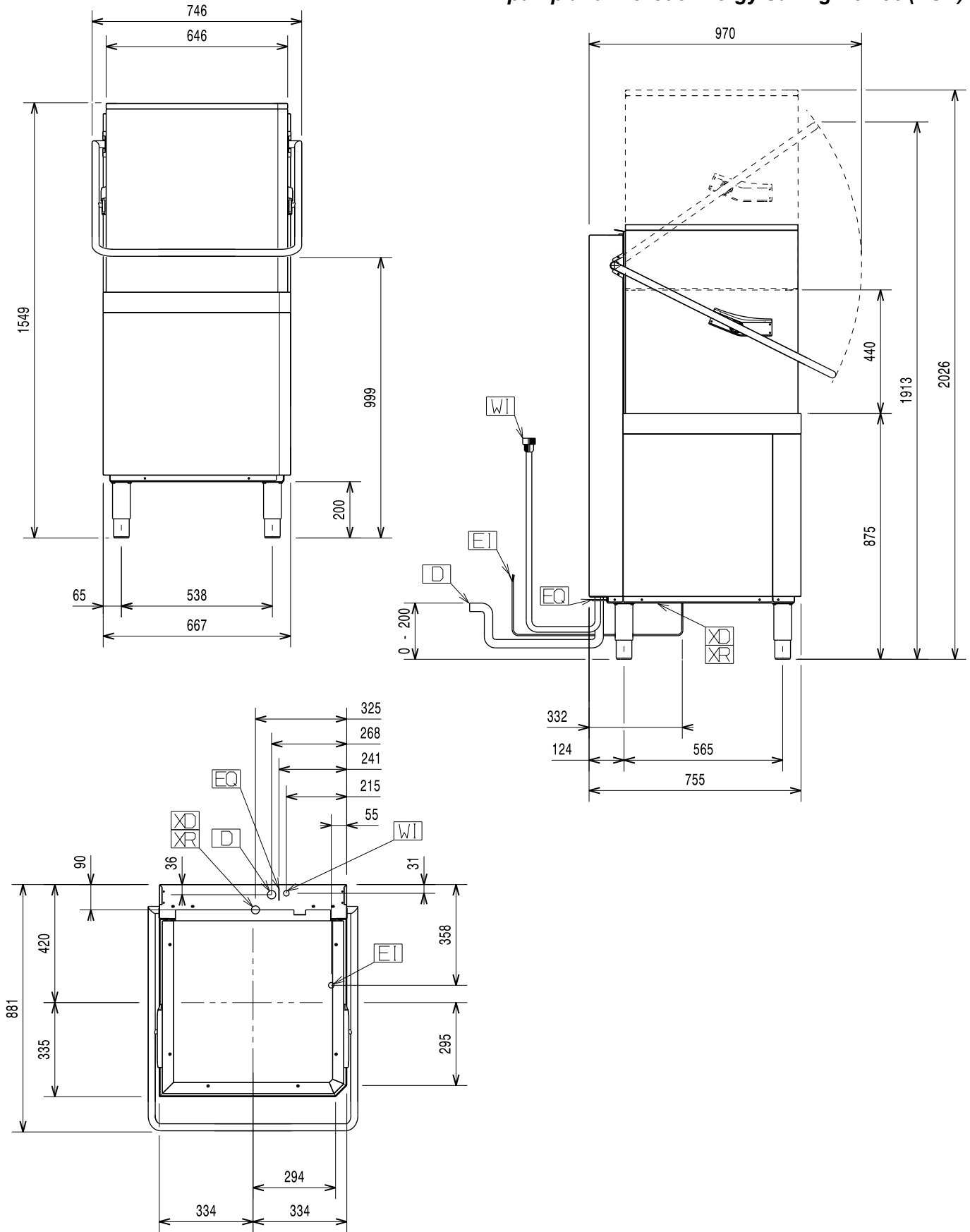


*Original instructions

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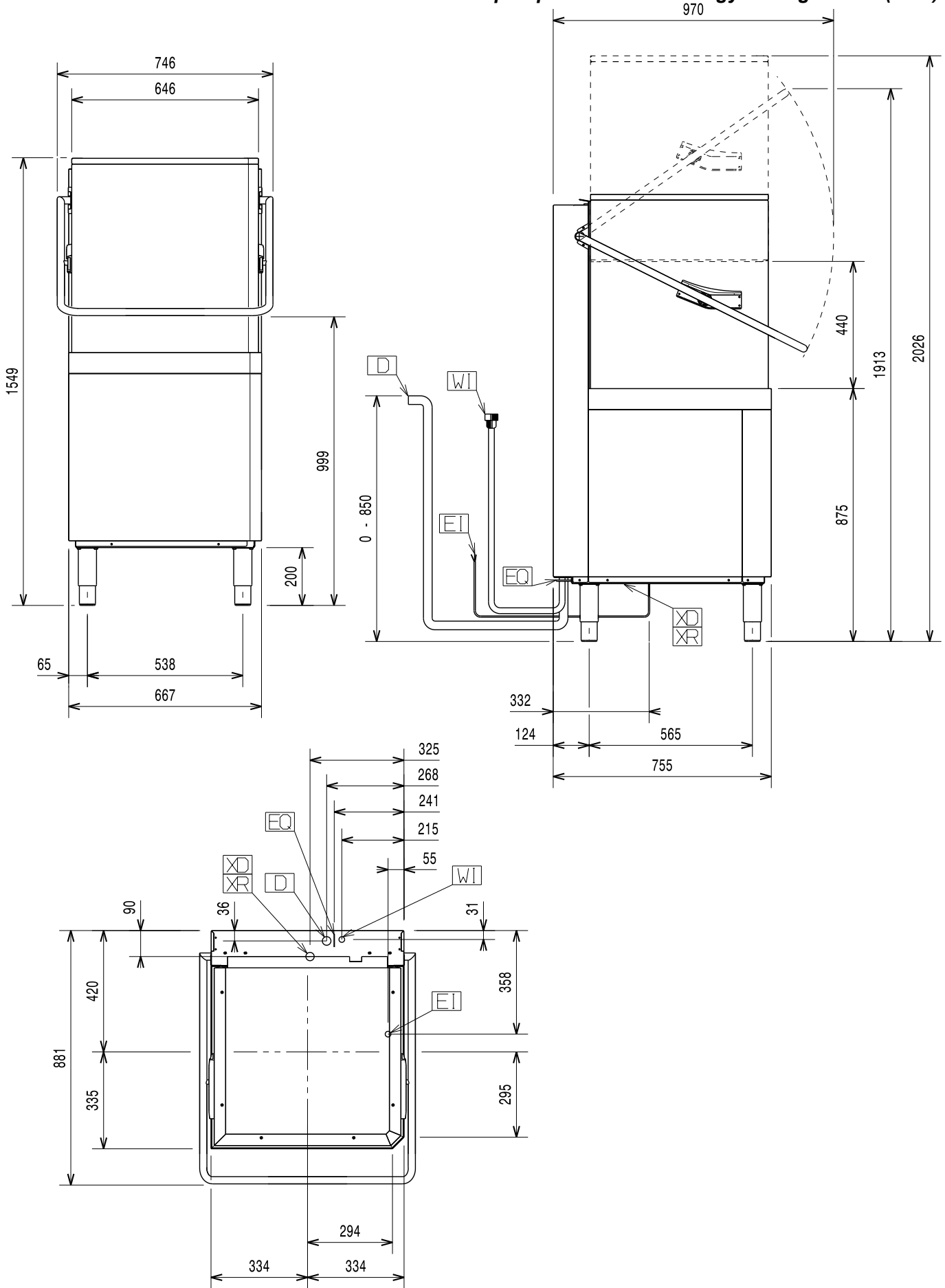
Installation diagram

Manual hood type (single skin) without drain pump and without Energy Saving Device (ESD)

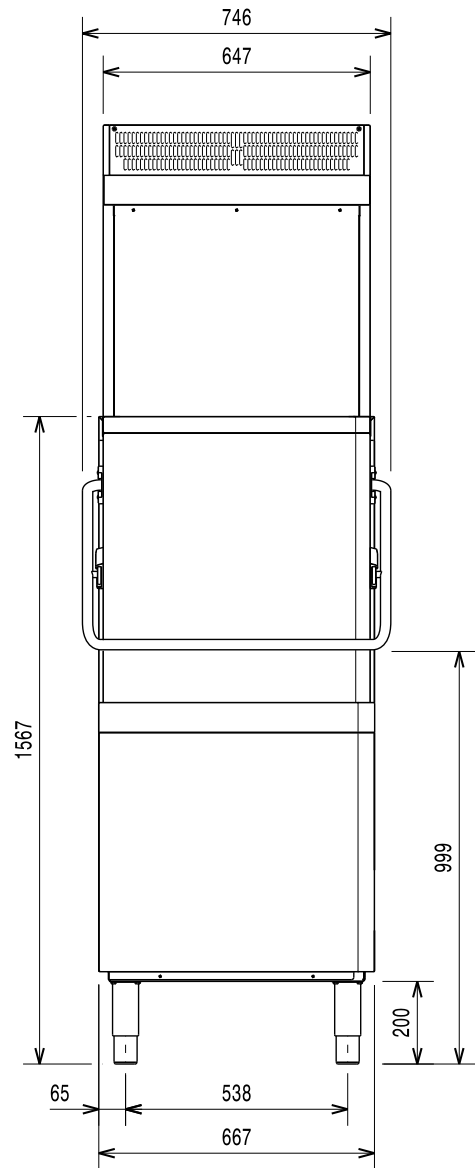


Installation diagram

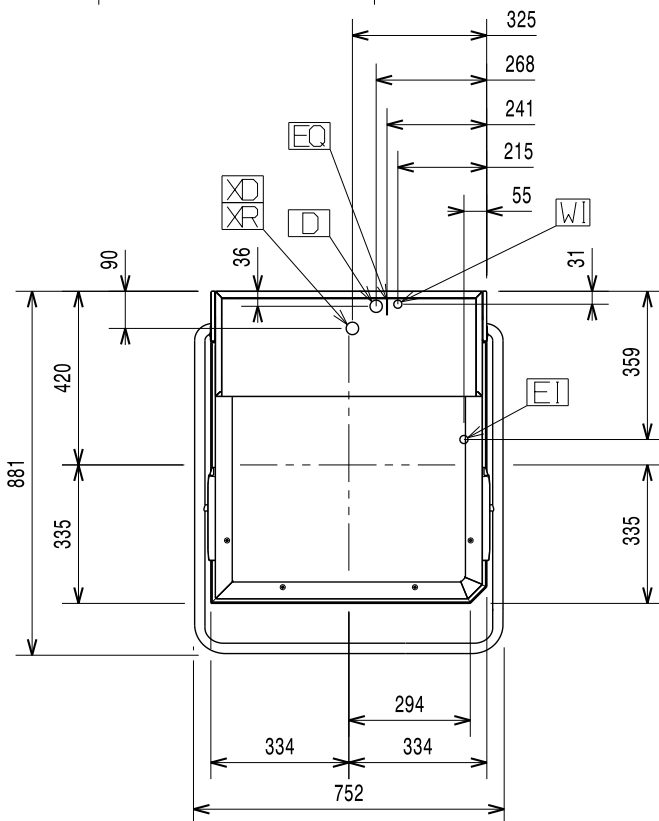
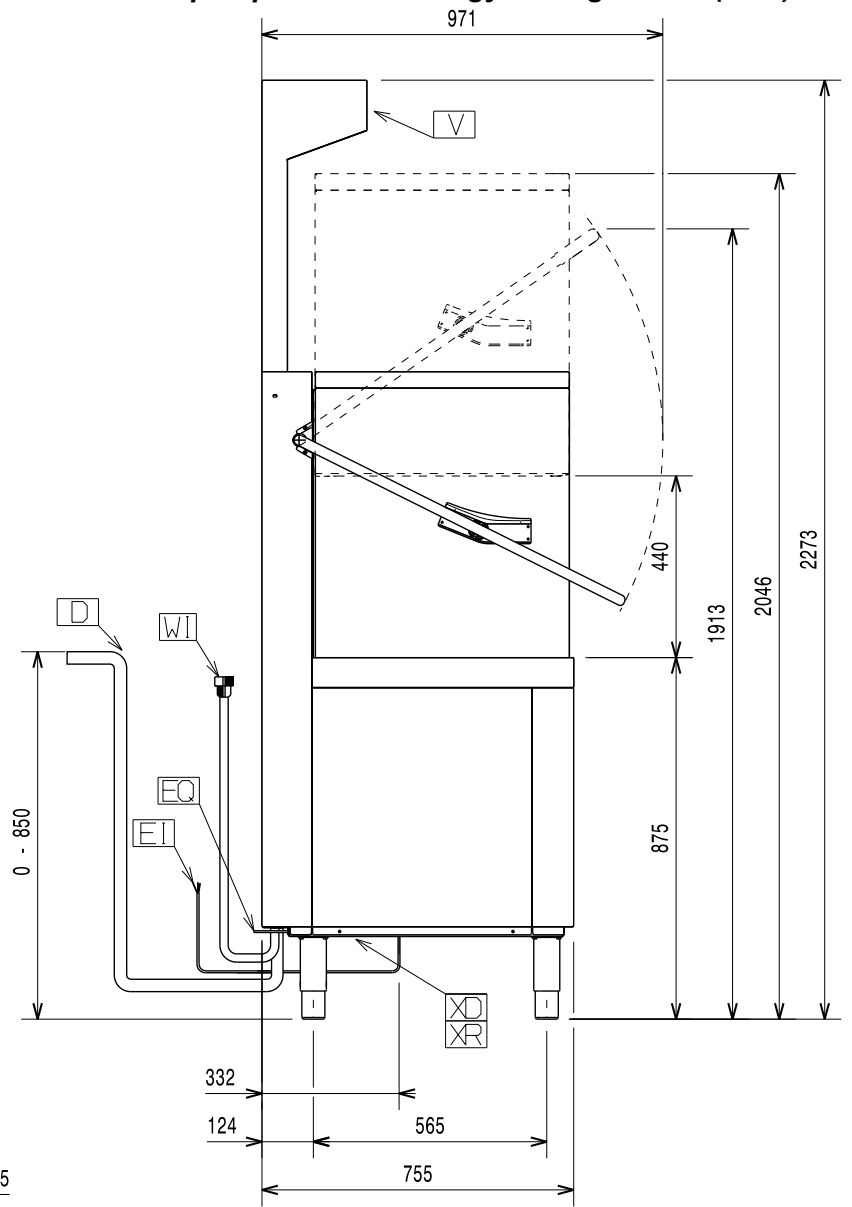
Manual hood type (single skin) with drain pump and without Energy Saving Device (ESD)



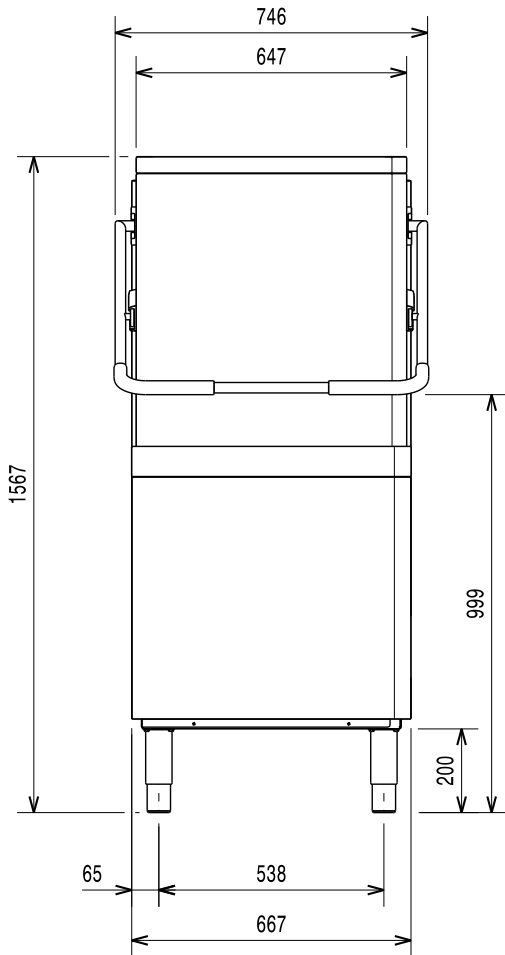
Installation diagram



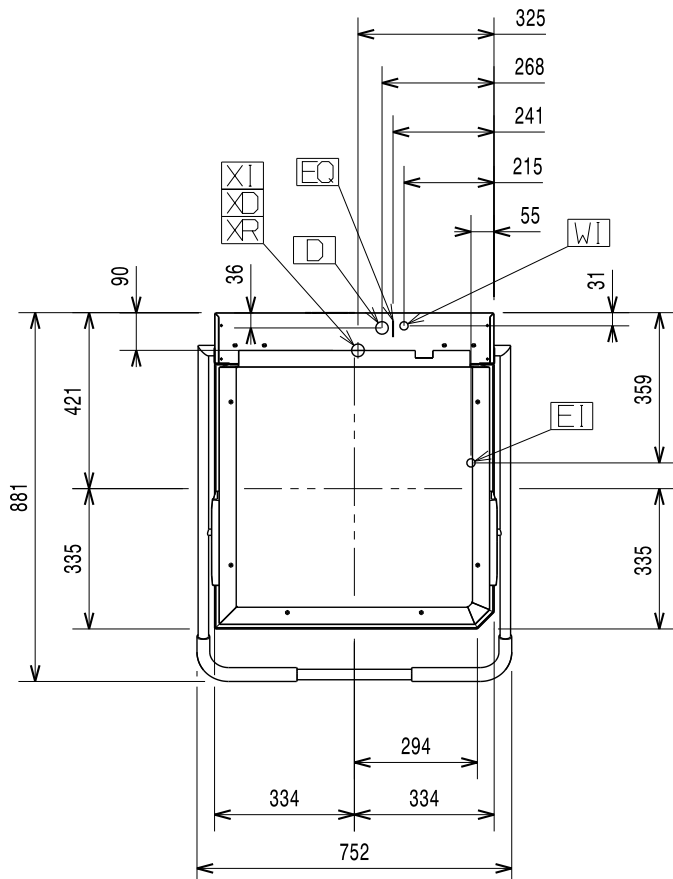
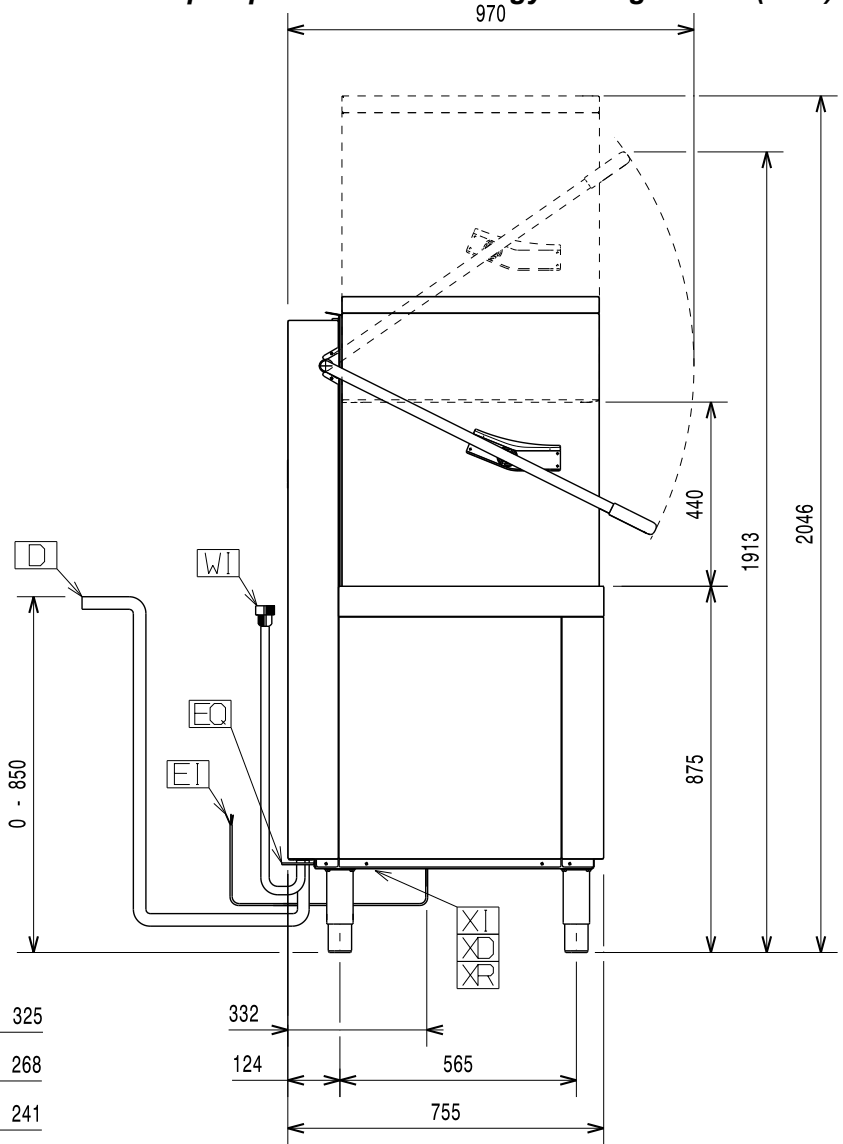
Manual hood type (single skin) with drain pump and with Energy Saving Device (ESD)



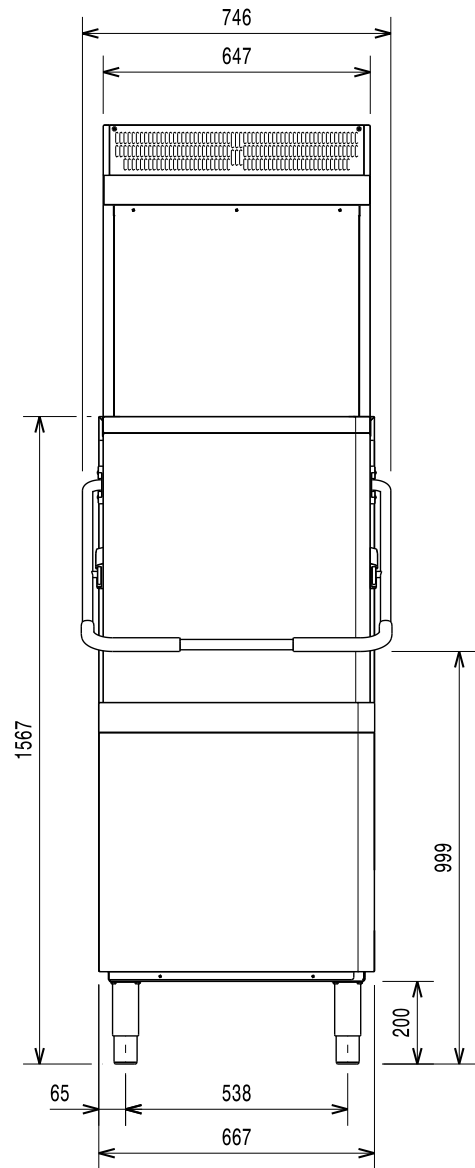
Installation diagram



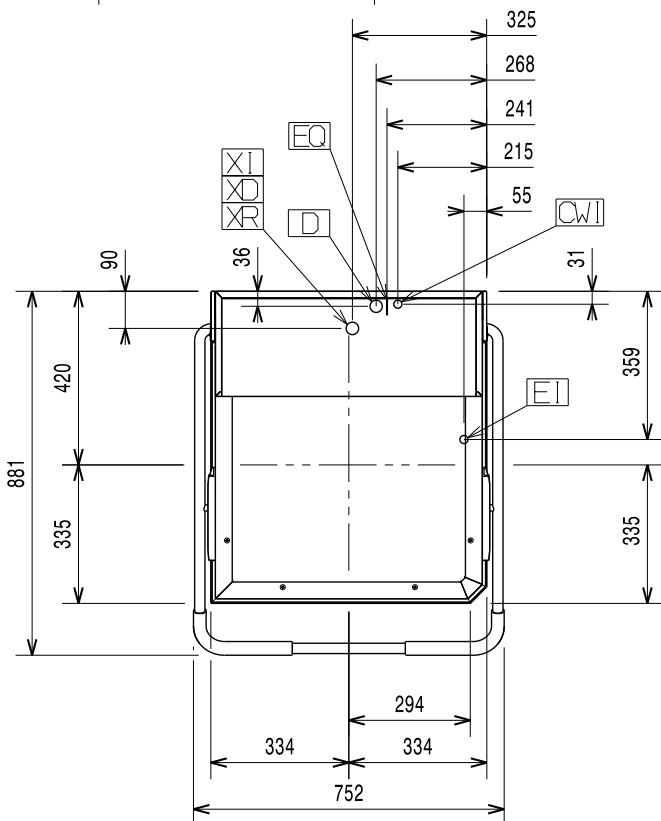
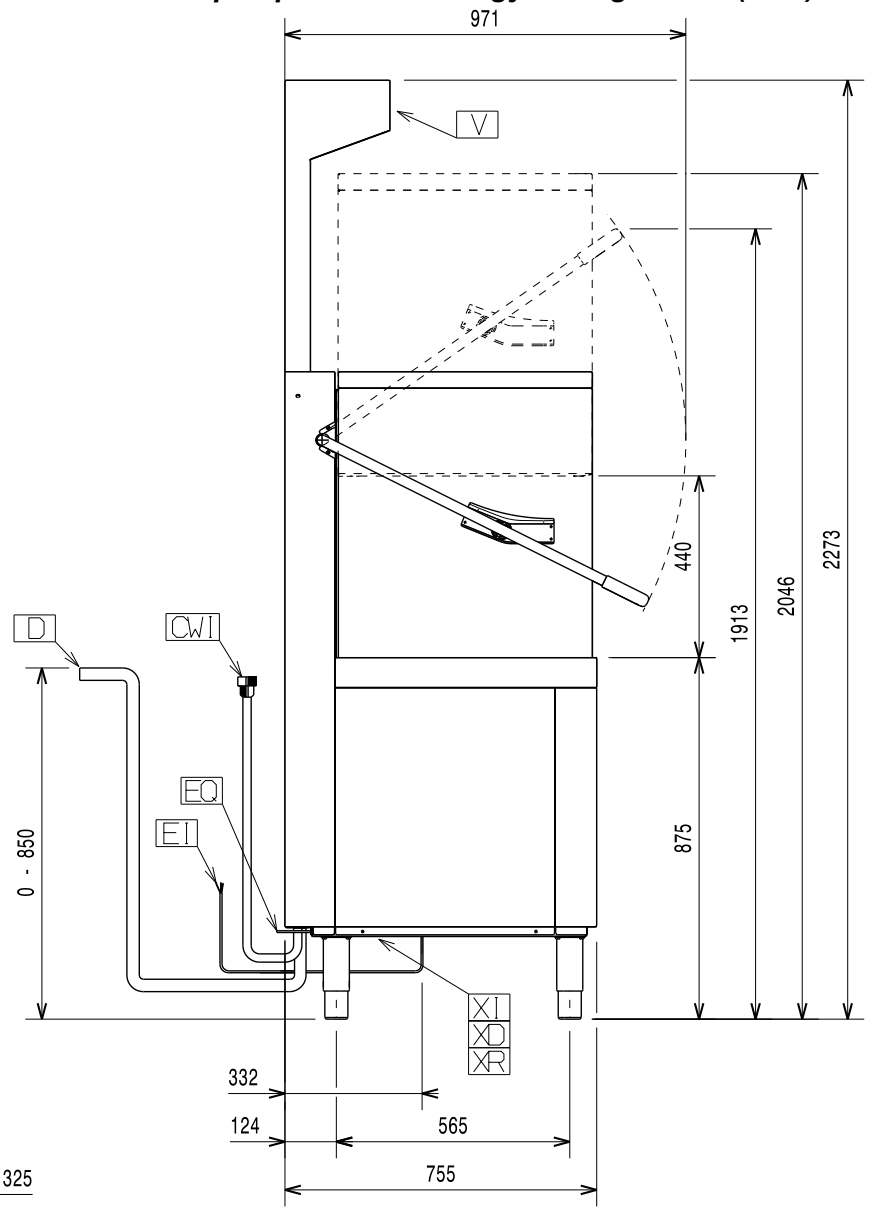
Manual hood type (double skin) with drain pump and without Energy Saving Device (ESD)



Installation diagram

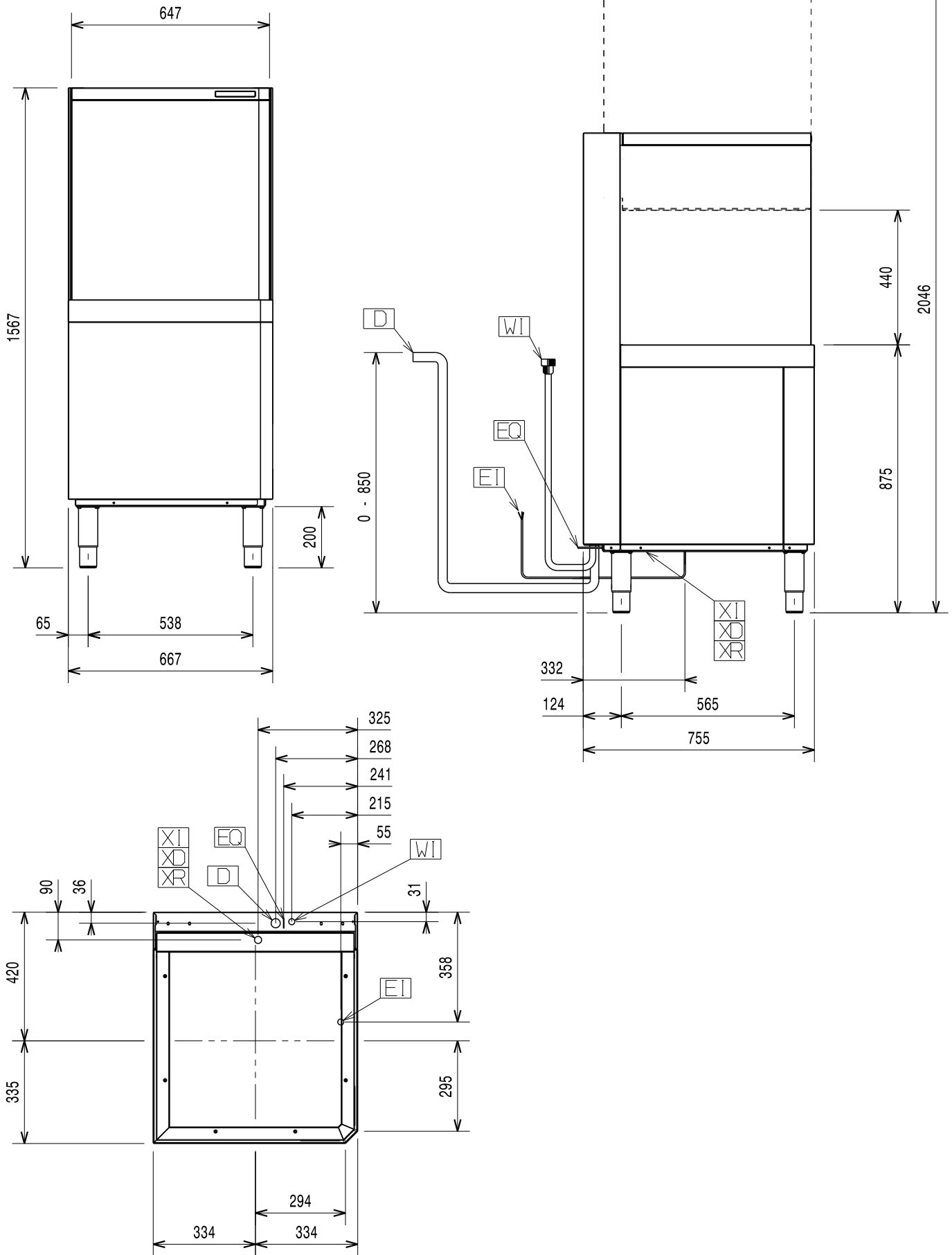


Manual hood type (double skin) with drain pump and with Energy Saving Device (ESD)



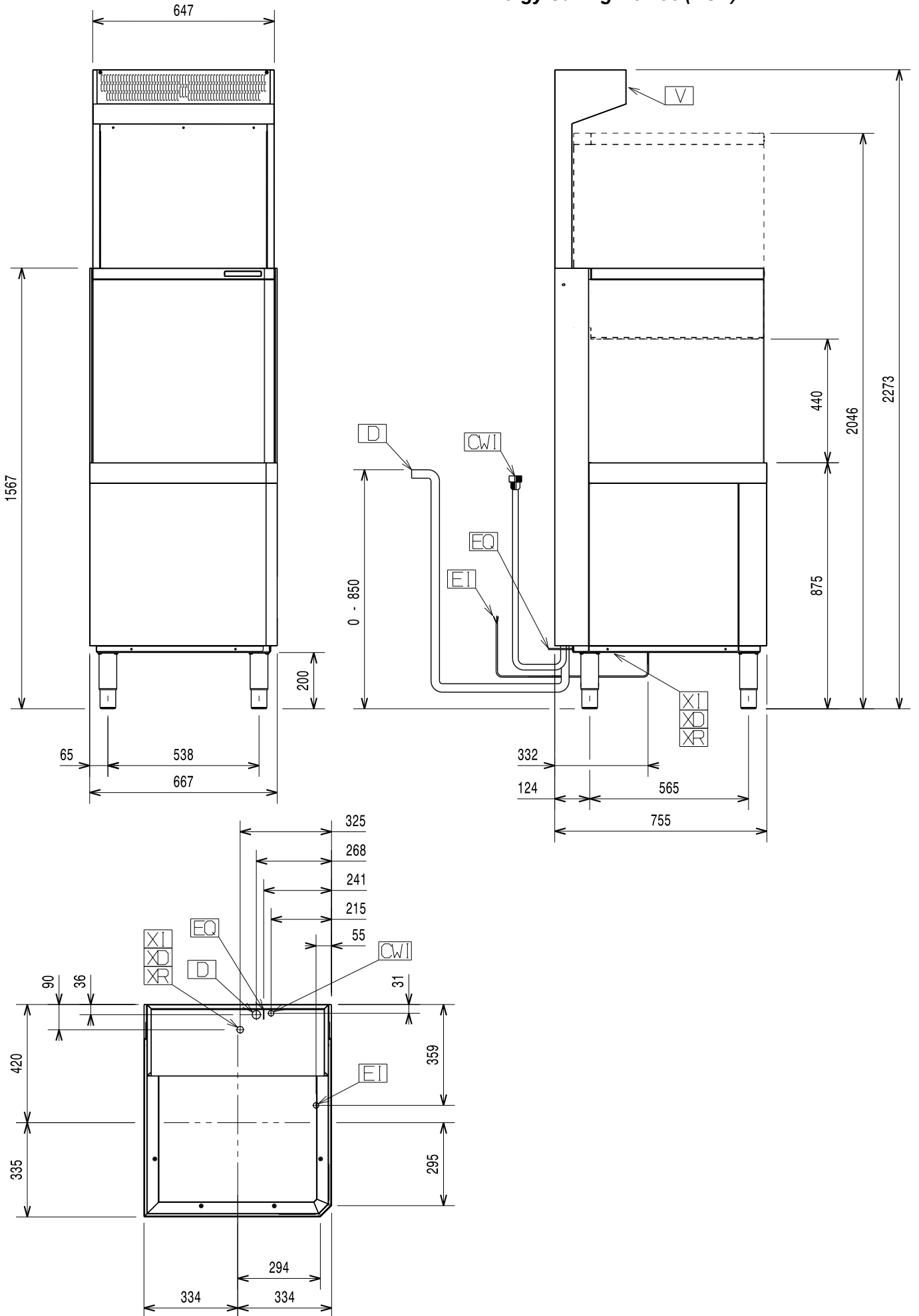
Installation diagram

Automatic hood type with drain pump and without Energy Saving Device (ESD)



Installation diagram

Automatic hood type with drain pump and with Energy Saving Device (ESD)



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

WI = Water Inlet pipe $\varnothing=3/4"$ G

D = Drain pipe internal $\varnothing=40$ mm(\wedge) - 20 mm($*$)

(\wedge) Only for model with free-fall drainage

($*$) Only for model with drain pump

EI = Electrical Inlet

EQ = Equipotential screw

XD = Inlet pipe for detergents

XR = Inlet pipe for rinse-aid

XI = Inlet pipe for delime

Foreword



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

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 appliance.

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

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

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

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



IMPORTANT

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

Contents

A	SAFETY INFORMATION	13
A.1	General information	13
A.2	General safety	13
A.3	Personal protection equipment	14
A.4	Transport, handling and storage	15
A.5	Installation and assembly	15
A.6	Water connection	15
A.7	Electrical connection	15
A.8	Machine cleaning and maintenance	16
A.9	Service	17
A.10	Disposal of packing	17
A.11	Machine disposal	17
B	GENERAL INFORMATION	17
B.1	Introduction	17
B.2	Definitions	17
B.3	Machine and Manufacturer's identification data	17
B.4	Appliance identification	18
B.4.1	How to identify the technical data	18
B.4.2	How to interpret the factory description	18
B.4.3	How to interpret the type reference	18
B.5	Responsibility	19
B.6	Copyright	19
B.7	Keeping the manual	19
B.8	Recipients of the manual	19
C	TECHNICAL DATA	19
C.1	Main technical characteristics	19
C.2	Characteristics of power supply	20
D	TRANSPORT, HANDLING AND STORAGE	21
D.1	Introduction	21
D.2	Transport: Instructions for the carrier	21
D.3	Handling	21
D.3.1	Procedures for handling operations	21
D.3.2	Shifting	21
D.3.3	Placing the load	21
D.4	Storage	21
D.5	Customer packaging checks	21
E	INSTALLATION AND ASSEMBLY	21
E.1	Introduction	21
E.2	Customer responsibilities	21
E.3	Characteristics of the installation place	22
E.4	Appliance space limits	22
E.5	Positioning	22
E.6	Extraction hood	23
E.7	Disposal of packing	23
E.8	Plumbing connections	23
E.9	Plumbing circuits	23
E.10	Electrical connections	24
E.10.1	Connections provided for energy control	25
E.11	Safety devices	25
E.12	"HACCP" arrangement	25
E.13	Detergent/rinse aid dispensers and prearrangements	26
E.13.1	Electrical connections for automatic detergent and rinse-aid dispensers	26
F	CONTROL PANEL DESCRIPTION	27
F.1	Control panel description	27
F.2	Basic Controls	27
G	COMMISSIONING	28
G.1	Preliminary checks, adjustments and operational tests	28
H	BASIC MACHINE SETUP	29
H.1	Manual activation	29
H.2	Setting the dispensers	29
H.3	Note for external dispenser	30
I	DISHWASHER WITH INCORPORATED CONTINUOUS WATER SOFTENER	30
I.1	Hood type dishwasher with incorporated continuous water softener	30
I.1.1	Salt container	31
I.1.2	How to fill the salt container	31
J	TROUBLESHOOTING	32
J.1	Alarms	32

A SAFETY INFORMATION

A.1 General information

This appliance is intended to be used for commercial applications, for example in kitchens of restaurants, canteens, hospitals. It must be used for washing or drying (depending on the model) plates, dishes, glassware, cutlery and similar articles.

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



WARNING

Danger for the health and safety of operators.



WARNING

Danger of electrocution - dangerous voltage.



CAUTION

Risk of damage to the appliance or the product.



IMPORTANT

Important instructions or information on the product



Equipotentiality



Read the instructions before using the appliance



Clarifications and explanations






A.2 General safety

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

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

A.3 Personal protection equipment

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

Stage	Protective garments 	Safety footwear 	Gloves 	Glasses 	Safety helmet 
Transport	—	●	○	—	○
Handling	●	●	○	—	—
Unpacking	○	●	○	—	—
Installation	○	●	● 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				

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

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

3. During these operations, gloves must be suitable for contact with chemical substances used (refer to the safety data sheet of the substances used for information regarding the required PPE). Failure to use the personal protection equipment by operators, specialized personnel or users can involve exposure to chemical risk and cause possible harm 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:
 - 0.5 bar [50 kPa] and 7 bar [700 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

This manual contains information relevant to various appliances. The product images in this guide are only an example.

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

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

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

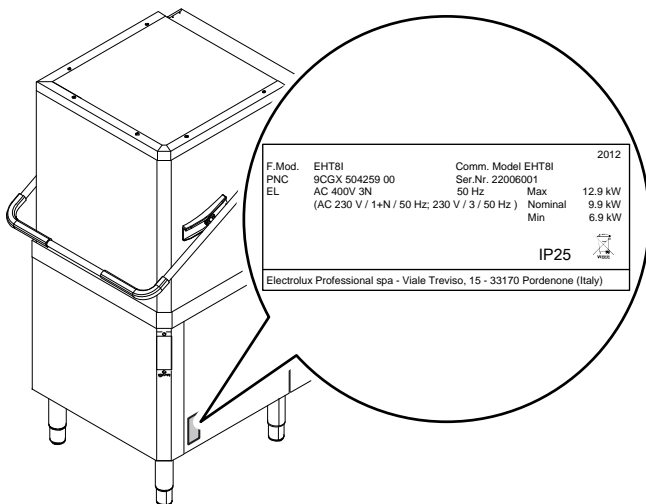
An example of the marking or dataplate on the machine is given below:

F.Mod.	_____	Comm. Model:	_____	2026
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
400V 3N~	power supply voltage
230V 3~ - 230V 1N~	electric convertibility
Hz	power supply frequency
12.9 kW	max. power
9.9 kW	nominal power
6.9 kW	min. power
IP25	dust and water protection rating
Type ref.	list of acronyms used to identify the type of machine, uniquely
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.



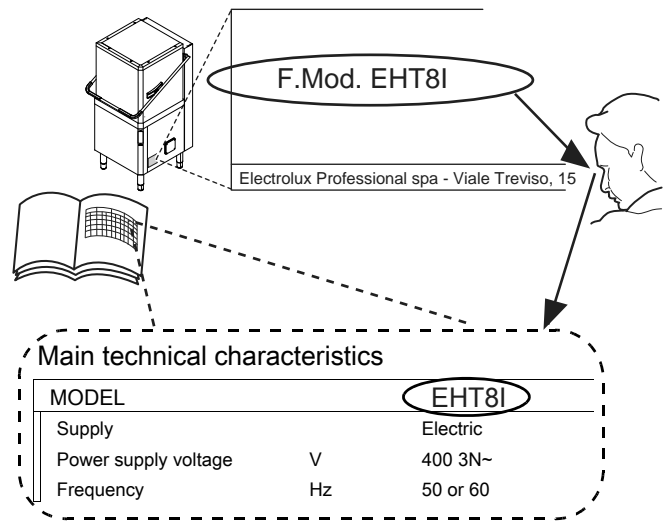
NOTE!

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

B.4 Appliance identification

B.4.1 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 "Main technical characteristics, performance and consumption".



B.4.2 How to interpret the factory description

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

Single-Skin version						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
N	HT	8	WS	G		
E	HT	8	M			
Z	HT	8	L	G	UK	
V	HT	7	G			

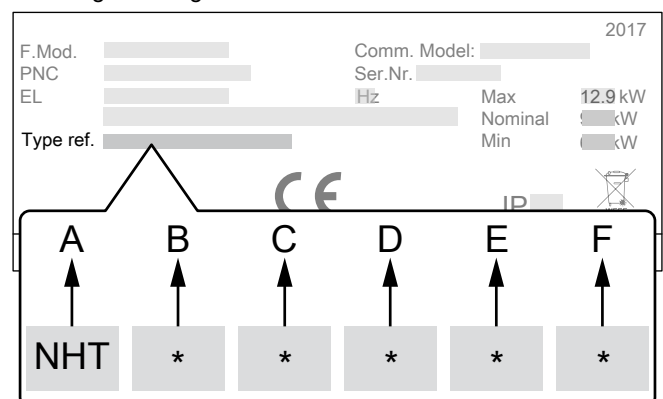
Double-Skin version						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Z	HT	8	I	E	L	G
E	HT	8	T	I	E	L
V	HT	7	I	G		

Variable description

(1) Brand	E = Electrolux, Z = Zanussi, N = To brand, K = Kipro, A = Alpeninox, H = Hakpro, KXT = Klumaier X Tanner, V = Veetsan
(2) Machine type	HT = Hood Type
(3) Racks/hour	8 = 80 racks/hour 7 = 72 racks/hour
(4...7) Appliance equipment	T = automatic, I = double skin hood, E = Energy Saving Device, L = delime cycle, G = detergent pump + rinse aid pump + drain pump, DD = detergent pump, WS = water softener, M = marine, USPH = marine-USPH, UK = UK market, 6 = 60 Hz, S = solid detergent, AUS = Australian market.

B.4.3 How to interpret the type reference

The type reference description on the dataplate has the following meaning.



Legend

A	Type of appliance <ul style="list-style-type: none"> • Hood type dishwasher
B	Type of rinsing <ul style="list-style-type: none"> • 0 = without rinse pump • 1 = with rinse pump
C	Water treatment <ul style="list-style-type: none"> • 0 = without water softener • 1 = with water softener
D	Type of hood <ul style="list-style-type: none"> • 0 = manual hood • 1 = automatic hood
E	Energy Saving Device [ESD] <ul style="list-style-type: none"> • 0 = without ESD • 1 = with ESD
F	Heating element in the boiler <ul style="list-style-type: none"> • 0 = single heating element • 1 = double heating element

B.5 Responsibility

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

- non-compliance with the instructions contained in this manual;
- repairs not carried out in a workmanlike fashion, and replacements with parts different from those specified in the spare parts catalogue (the fitting and use of non-original spare parts and accessories can negatively affect appliance operation and invalidates the original manufacturer warranty);
- operations carried out by non-specialised personnel;
- unauthorized modifications or operations;
- missing, lack or inadequate maintenance;
- improper appliance use;

- unforeseeable extraordinary events;
- use of the appliance by uninformed and / or untrained personnel;
- non-application of the current provisions in the country of use, concerning safety, hygiene and health in the workplace.

The Manufacturer declines any liability for:

- damage caused by arbitrary modifications and conversions carried out by the user or the Customer;
- inaccuracies contained in the manual, if due to printing or translation errors.

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.

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.6 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.

B.7 Keeping the manual

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

B.8 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		NHT8/EHT8/ KHT8/HHT8/ XHT8/ZHT8/ VHT7/	ZHT8/AHT8/ EHT8/NHT8/ HHT8/XHT8/ VHT7/	EHT8M/ EHT8IUSPH5	EHT8M6/ EHT8IUSPH6	EHT8TIL.../ ZHT8TIL...
Supply voltage: convertible to single-phase version		400V 3N~ 230V 3~ 230V 1N~	400V 3N~ ¹ 230V 3~ ¹ 230V 1N~ ¹	400V 3~ — —	440V 3~ — —	400V 3N~ 230V 3~ 230V 1N~
Frequency	Hz	50	50 or 60	50	60	50
Max. power	kW	12.9 ²	12.9 ²	12.9 ²	12.9 ²	12.9 ²
Power absorbed as factory setting		9.9	9.9	9.9	9.9	9.9
Power absorbed with water supply at 65°C [149°F]		6.9 ³	6.9 ³	—	—	6.9 ³
Boiler heating elements	kW	9.0	9.0	9.0	9.0	9.0
Tank heating elements	kW	3.0	3.0	3.0	3.0	3.0
Water supply pressure	bar [kPa]	0.5 bar [50 kPa] 7 bar [700 kPa]	0.5 bar [50 kPa] 7 bar [700 kPa]	0.5 bar [50 kPa] 7 bar [700 kPa]	0.5 bar [50 kPa] 7 bar [700 kPa]	0.5 bar [50 kPa] 7 bar [700 kPa]
Water supply temperature: — for models without ESD — for models with ESD	°C [°F]	10-65 [50-149] —	10-65 [50-149] 10-20 [50-68]	10-65 [50-149] —	10-65 [50-149] —	10-65 [50-149] 10-20 [50-68]

Model		NHT8/EHT8/ KHT8/HHT8/ XHT8/ZHT8/ VHT7/	ZHT8/AHT8/ EHT8/NHT8/ HHT8/XHT8/ VHT7/	EHT8M/ EHT8IUSPH5	EHT8M6/ EHT8IUSPH6	EHT8TIL.../ ZHT8TIL...
Water supply hardness for models without incorporated continuous water softener	°f/°d/ °e	14/8/10 max	14/8/10 max	14/8/10 max	14/8/10 max	14/8/10 max
Water supply hardness for models with incorporated water softener	°f/°d/ °e	53.4/30/ 35.7 max	53.4/30/ 35.7 max	53.4/30/ 35.7 max	53.4/30/ 35.7 max	53.4/30/ 35.7 max
Electric conductivity of water for models without incorporated continuous water softener	µS/ cm	<400	<400	<400	<400	<400
Concentration of chlorides in water	ppm	<20	<20	<20	<20	<20
Rinse cycle water consumption	l	2.0 ⁴	2.0 ⁴	2.0	2.0	2.0
Boiler capacity	l	12	12	12	12	12
Tank capacity	l	24	24	24	24	24
Cycle duration in "High Productivity" mode ⁵	sec.	45-84-150 50-84-150 (VHT7G)	45-84-150 ⁶ 50-84-150 (VHT7IG)	45-84-150	45-84-150	45-84-150 ⁶
Cycle duration in "NSF/ANSI3" compliant mode ⁵	sec.	57-84-150	57-84-150 ⁶	57-84-150	57-84-150	57-84-150 ⁶
Legal noise level Leq ⁷	dB[A]	LpA:68dB KpA:1.5dB	LpA:68dB KpA:1.5dB	LpA:68dB KpA:1.5dB	LpA:68dB KpA:1.5dB	LpA:68dB KpA:1.5dB
Protection rating		IP25	IP25	IP25	IP25	IP25
Net weight for models without [with] ESD	kg	106 [-]	117 [150]	117 [-]	117 [-]	119 [152]
Power supply cable		H07RN-F	H07RN-F	H07RN-F	H07RN-F	H07RN-F
Supply cord diameter (min. - max. value)	mm	18 - 25	18 - 25	18 - 25	18 - 25	18 - 25
Latent heat without [with] ESD	kWh	0.5 [-]	0.5 [0.35]	0.5 [-]	0.5 [-]	0.5 [0.35]
Sensible heat without [with] ESD	kWh	2 [-]	2 [1.49]	2 [-]	2 [-]	2 [1.49]

1. For the model EHT8IELG6: 380-400V 3N~ convertible 220-230V 3~ or 220-230V 1N~.
2. If activated by software, coincidence of tank and boiler heating elements.
3. Activatable via software only by a specialized technician.
4. For models VHT7G and VHT7IG 2.3 liters.
5. With water supply temperature at 65°C [149°F].
6. In models with Energy Saving Device (ESD) cycle duration is extended by 11 seconds.
7. The noise emission values have been obtained according to EN ISO 11204.

	380 – 415V 3N		400 – 440V 3		220 – 240V 3		220 – 240V 1N	
	C	S	C	S	C	S	C	S
6.9 kW	5x2.5 mm ²	16A 3P + N	5x2.5 mm ²	16A 3P	4x4 mm ²	20A 3P	3x6 mm ²	40A 1P + N
9.9 kW	5x2.5 mm ²	20A 3P + N	4x2.5 mm ²	20A 3P	4x6 mm ²	32A 3P	3x10 mm ²	60A 1P + N
12.9 kW	5x4 mm ²	32A 3P + N	4x4 mm ²	25A 3P	4x10 mm ²	50A 3P	3x10 mm ²	70A 1P + N

C = Power supply cable
S = On/Off switch



NOTE!

Standard cycle time may vary should the inlet water temperature and/or the boiler heating elements be different from that indicated above.

C.2 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 chapter "A SAFETY INFORMATION".

D.1 Introduction

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



CAUTION

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

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



IMPORTANT

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

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 appliance 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 appliance, keeping it at minimum height from the ground.

For correct and safe lifting operations:

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

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

The place where the appliance is stored must:

- can take the appliance load,
- have a flat support surface to avoid deforming the appliance or damage to the support feet.

D.5 Customer packaging checks

- 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.

After packaging checks

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.

E INSTALLATION AND ASSEMBLY



WARNING

Refer to chapter "A 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.1 *Main technical characteristics* and C.2 *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.1 *Main technical characteristics* and in the paragraph E.8 *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 Appliance space limits

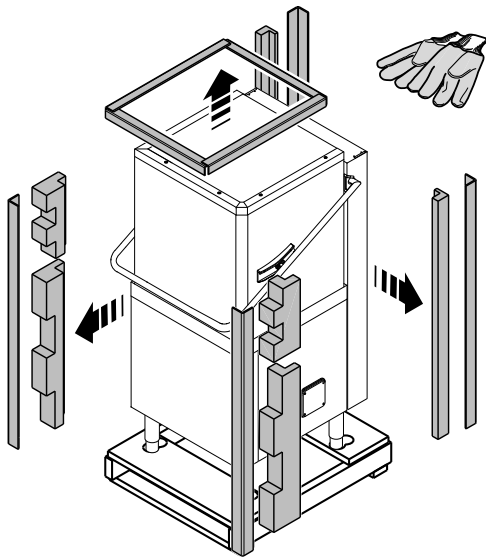
- A suitable space must be left around the appliance (for operations, maintenance, etc.).
- The passages enabling personnel to operate on the appliance must be at least 50 cm wide, except at the rear of the appliance.
- This space must be increased in case of use and/or transfer of other equipment and/or means or if exit routes are necessary inside the workplace.
- To be used to keep the correct distances indicated in the installation diagram.

E.5 Positioning

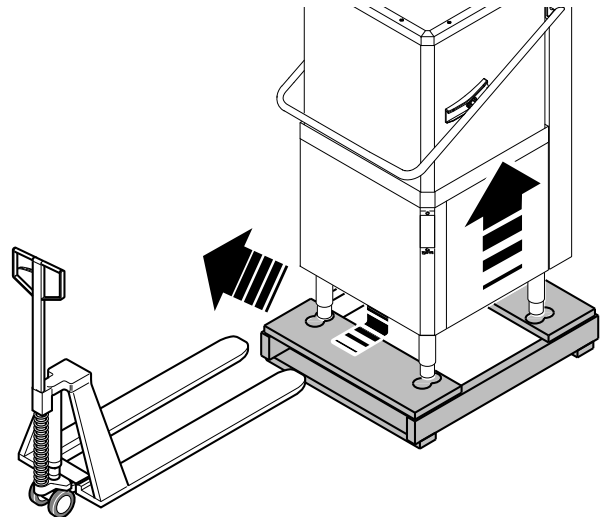
The machine must be taken to the place of installation and the packing base removed only when being installed.

Arranging the machine

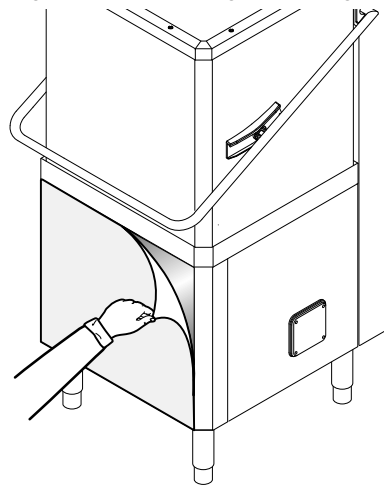
- Wear protective gloves and unpack the machine.



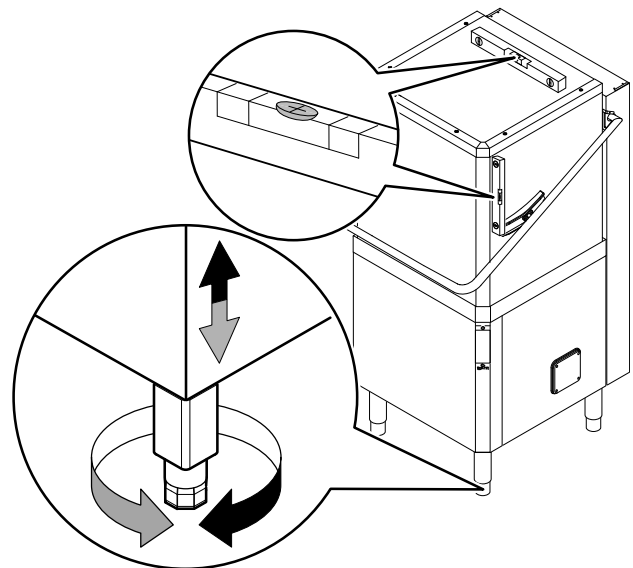
- Lift the equipment with a lift truck, remove the base and position it the place of use.



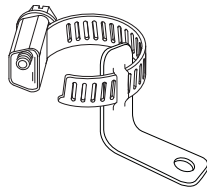
- Carefully remove the protective film from the outer panels without tearing it, to avoid leaving traces of glue.



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



- The appliance must be fixed to the floor using the two clamps supplied.



- Accessing the appliance bottom panel.
- Fit the clamps on feet as shown in supplied technical sheet.
- Screw the appliance steadily to the floor using hole clamps.

E.6 Extraction hood

For models **without** Energy Saving Device [ESD], make sure to install an extractor hood to remove the steam produced by the machine.

For models **with** Energy Saving Device [ESD], **it is not** necessary to install an extractor hood unless the current regulations in the country of use require it.

The hood air flow must be calculated taking into account the type of installation and the work environment where it is installed.

In any case, an air flow rate of between 1000 m³/h and 1500 m³/h is recommended.

E.7 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.

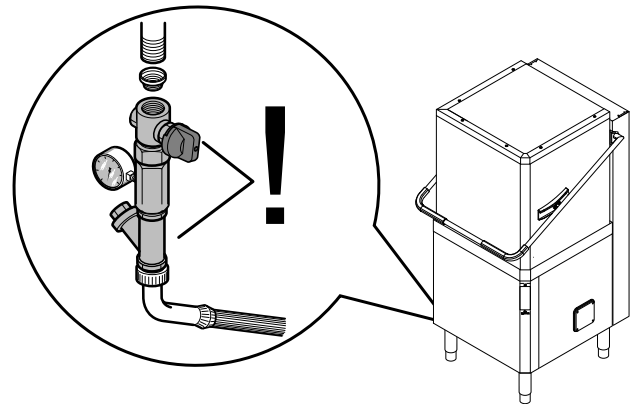
They can be safely kept, recycled, or burned in an appropriate waste incineration plant. Recyclable plastic parts are marked as follows:

 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 appliance is used.

E.8 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).



- Check that the dynamic water supply pressure, measured between the appliance and the main, is between between 50 and 700 kPa [0.5 - 7 bar] (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 and 1000 mm from the floor. Check that about 3 litres of water flow out of the outlet pipe during the rinse cycle.



CAUTION

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

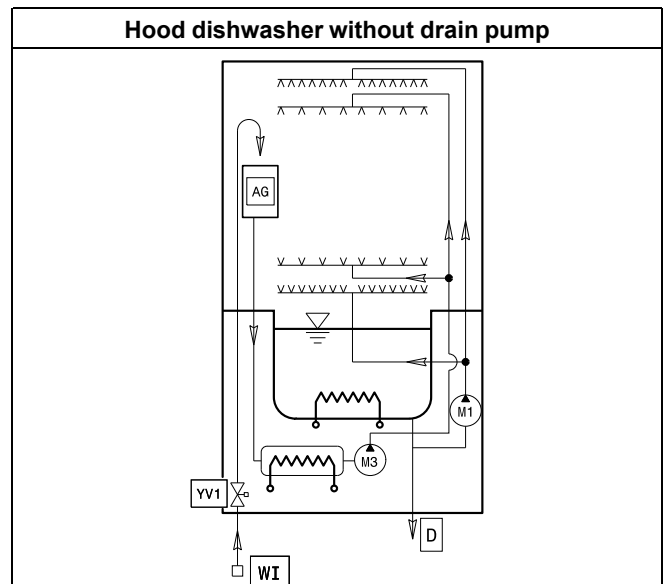


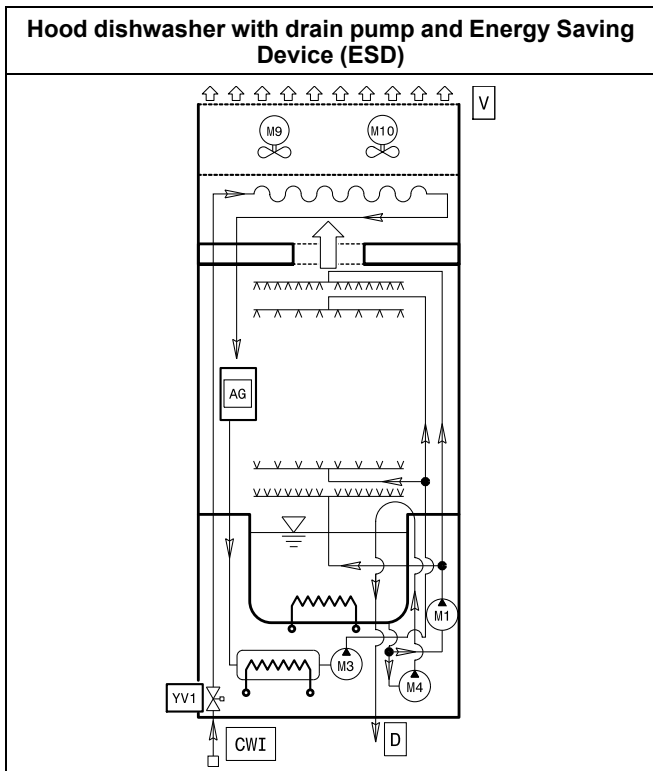
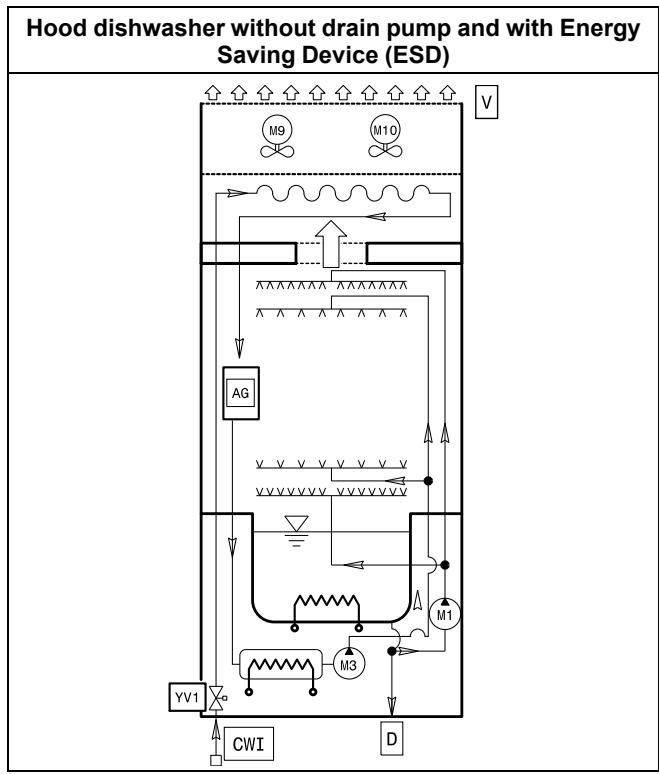
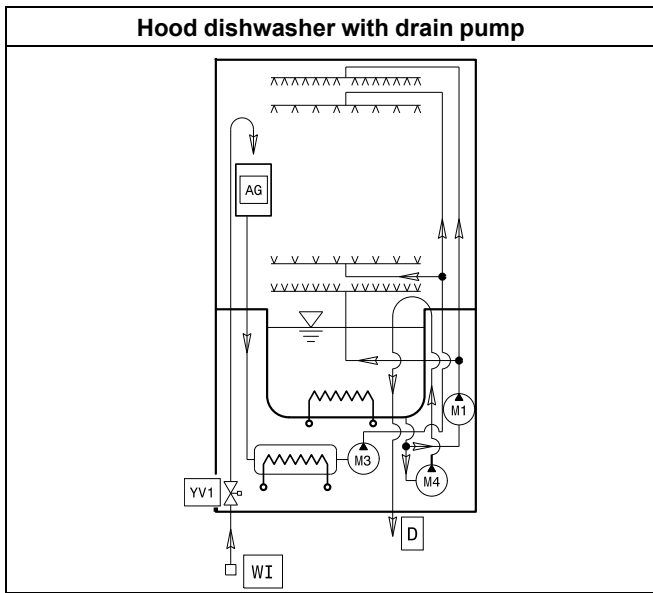
IMPORTANT

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

On models with ESD (Energy Saving Device), an approved dual check valve must be installed upstream.

E.9 Plumbing circuits





LEGEND

CWI	Cold Water inlet (~15°C)
WI	Water inlet (10°C - 65°C)
D	Drain
M1	Wash pump
M3	Rinse pump
M4	Drain pump
M9	ESD fan motor
M10	ESD fan motor
AG	Air Gap
YV1	Filling solenoid valve
V	Ventilation

E.10 Electrical connections



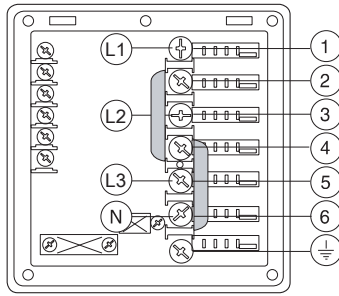
WARNING

Work on the electrical systems must only be carried out by a specialised personnel.

- Connection to the power supply must be carried out in compliance with the regulations and provisions in force in the country of use.
 - Appliances for Australian and New Zealand market must be installed in accordance with AS/NZS 3000 standard.
- Make sure the machine power supply voltage specified on the rating plate matches the mains voltage.
- Make sure the system power supply is arranged and able to take the actual current load and that it is executed in a workmanlike manner according to the regulations in force in the country of use.
- The earth wire from the terminal board side must be longer (max 20 mm) than the phase wires.
- Connect the power cable earth wire to an efficient earth. The equipment must also be included in an equipotential system, whose connection is made by means of screw EQ (see par. *Installation diagram*) indicated by the symbol . The equipotential wire must have a section of at least 10 mm².

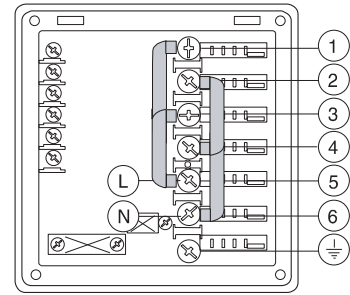
Power supply 380-415V 3N~

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



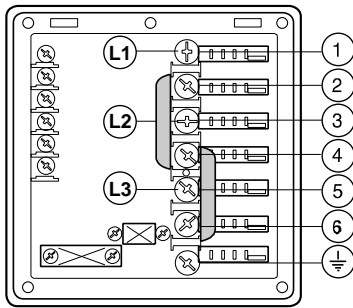
Power supply 220 - 230V 1N

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



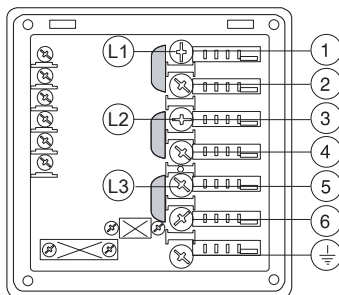
Power supply 400 - 440V 3

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



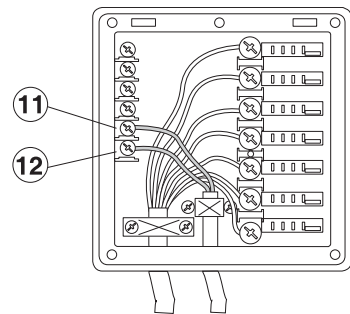
Power supply 220 - 230V 3

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



E.10.1 Connections provided for energy control

This appliance is designed for an external energy consumption control.



Connect the energy peak controller across terminals 11 and 12.



CAUTION

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

E.11 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.



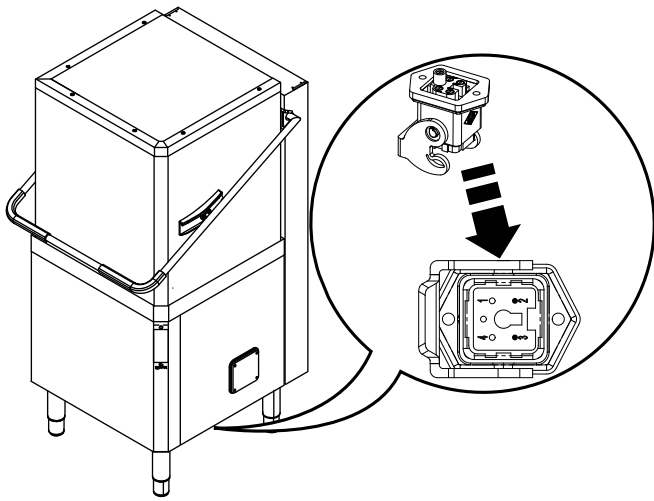
IMPORTANT

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

E.12 "HACCP" arrangement

In some models the appliance is not arranged for the "HACCP" connection. The "HACCP" kit can be ordered as an accessory. When the appliance is arranged for the "HACCP" connection it is still necessary to order the network connection cable.

Connect the "HACCP" network to terminals 2 and 3 of connector X4.



E.13 Detergent/rinse aid dispensers and prearrangements

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

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).



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.

1. Dishwasher with incorporated liquid detergent dispenser pump

When the appliance is filled with water for the first time in the day, pump "R" dispenses a detergent quantity in the tank providing a concentration of 2 g/l. In order to change this value, access the parameter d_{In} (refer to H.2 *Setting the dispensers*).

At each cycle, pump "R" dispenses a detergent quantity in the tank providing a concentration of 2 g/l. In order to change this value, access the parameter d_{Et} (refer to H.2 *Setting the dispensers*). Insert the supplied hose into the detergent container.

2. Dishwashers with incorporated rinse-aid dispenser pump

When the appliance is filled with water for the first time in the day, pump "S" dispenses a rinse-aid quantity in the boiler providing a concentration of 0,1 g/l. In order to change this value, access the parameter r_{In} (refer to H.2 *Setting the dispensers*).

At each rinse cycle, pump "S" dispenses a rinse-aid quantity in the boiler providing a concentration of 0,1 g/l. In order to change this value, access the parameter r_{Ai} (refer to H.2 *Setting the dispensers*). Insert the supplied hose into the rinse-aid container.

3. Automatic dispenser arrangement for solid detergent

Inside the tank there is a hole "O" (\varnothing 22 mm), closed with a plug, and an injector "P" (\varnothing 22 mm) for introducing the detergent.

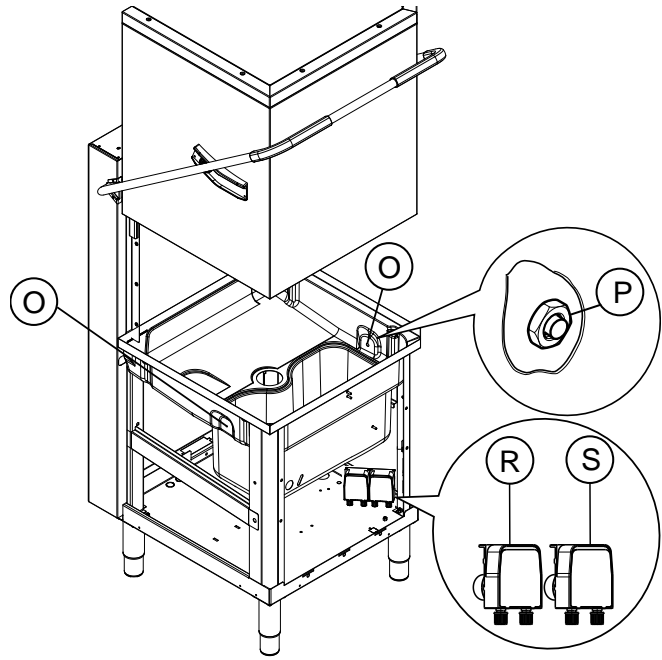
On the bottom of the tank there is an additional closed hole (\varnothing 22 mm) to be used for the installation of the conductivity probe.

4. Connections for automatic detergent dispenser

There are two holes (plugged) "O" (\varnothing 5 mm) for introducing the detergent. These holes may be easily identified from

outside by looking for the counter sunk marks on the external panel.

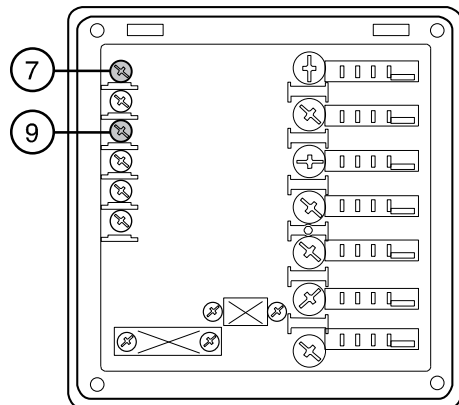
Inside the tank there is a hole "P" (\varnothing 10 mm) closed with a plug, which may be used for mounting a liquid detergent injector.



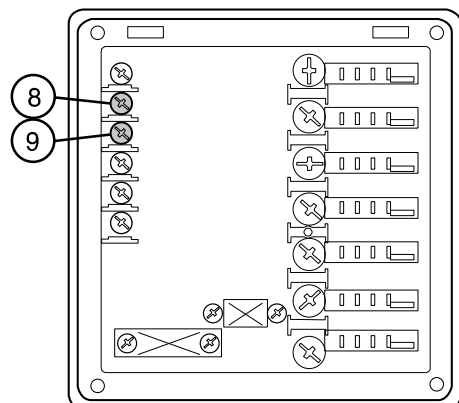
E.13.1 Electrical connections for automatic detergent and rinse-aid dispensers

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

- Connect the detergent dispenser between terminals 7 and 9. These connection points are live for a set time during filling of the tank and at the start of the wash cycle (see paragraph H.2 *Setting the dispensers*).

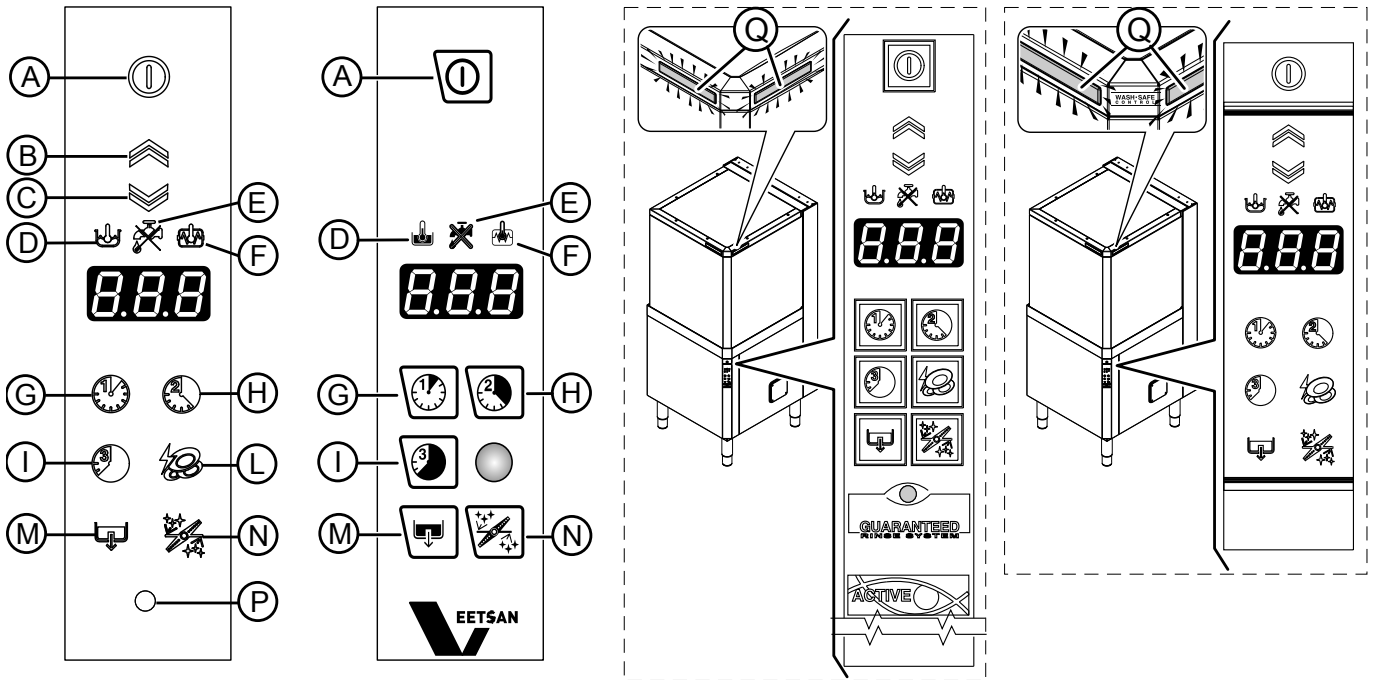


- Connect the rinse-aid dispenser between terminals 8 and 9. These connection points are live during filling of the tank and at the end of the rinse cycle for a set time (see H.2 *Setting the dispensers* paragraph).



F CONTROL PANEL DESCRIPTION

F.1 Control panel description



A	On / Off
B	Open hood
C	Close hood
D	"Tank temperature" indicator light
E	"Water tap" indicator light
F	"Boiler temperature" indicator light
G	Wash cycle 1
H	Wash cycle 2
I	Wash cycle 3
L	High Productivity or NSF/ANSI 3 compliant
M	Drain / self-cleaning cycle
N	"Delime" cycle
P	ACTIVE / WASH SAFE CONTROL
Q	LED bar

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 hood, the indicator light GOES OUT.



NOTE!

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

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.



Hood opening/closing (for automatic versions only)

These buttons open/close the hood, only in automatic versions.



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 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.



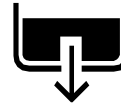
High Productivity or NSF/ANSI 3 compliant mode

This button is used to go from “High Productivity” wash mode to “NSF/ANSI3” compliant mode and vice versa.



Drain / self-cleaning cycle

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



Delime cycle

This button is used to run a machine water circuit “delime” cycle with vinegar. When a cycle is selected, the corresponding button is lit up.



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

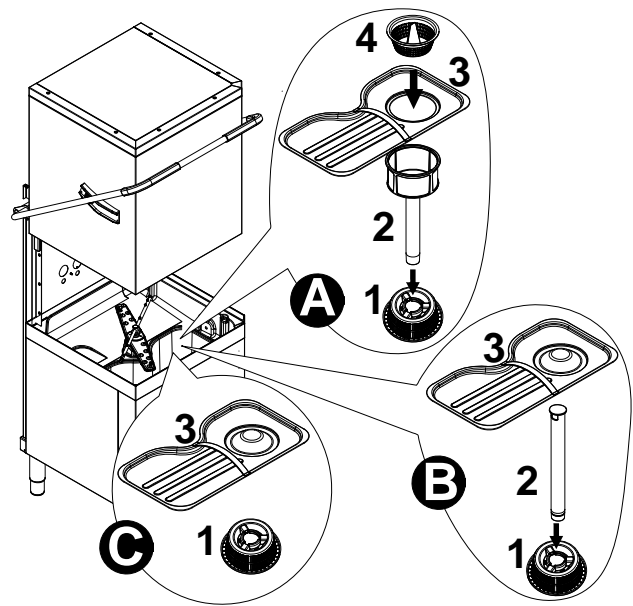
Before starting the machine:

- 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.1 *Main technical characteristics*);
- check correct connection of the water supply and drain pipes (see paragraph E.8 *Plumbing connections*);
- make sure all the guards, safety devices and emergency switches are in place and efficient.

Check the fitting of filters and overflows

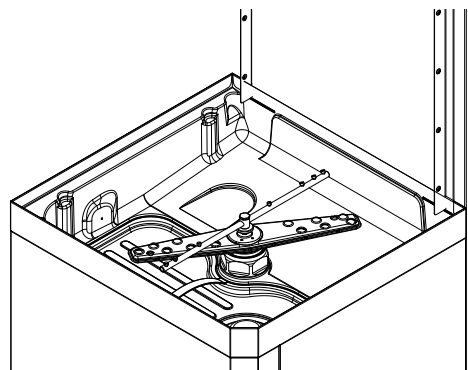
- In versions **with** supplementary Filtering System (FS), make sure the pump suction filter “1”, the tank filter “2”, the flat filter “3” and the basket filter “4” are correctly fitted (see detail “A”).
- In versions **without** supplementary Filtering System (FS) and without drain pump, make sure the filter “1”, the overflow “2” and the flat filter “3” are correctly fitted (see detail “B”).

- In versions **without** supplementary Filtering System (FS) and with drain pump, make sure the pump suction filter “1” and the flat filter “3” are correctly fitted (see detail “C”).



Check the fitting of wash and rinse arms

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



H BASIC MACHINE SETUP

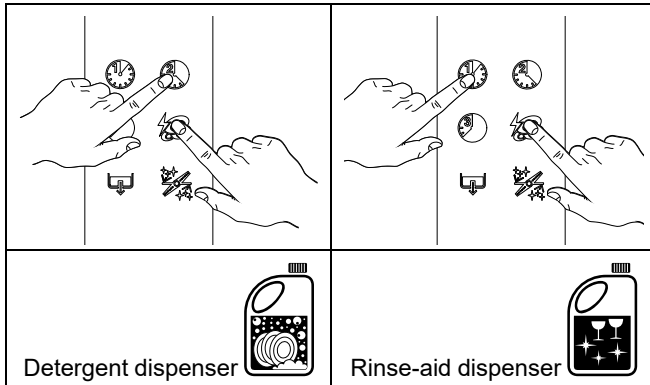
H.1 Manual activation



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.

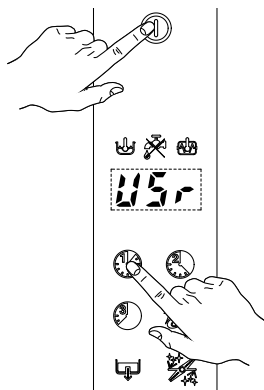
Whenever the detergent containers are replaced, it may be necessary to activate the dispensers manually in order to fill the hoses and eliminate any air. Simultaneously press the buttons, as shown in the figures below. If necessary, repeat this operation several times.



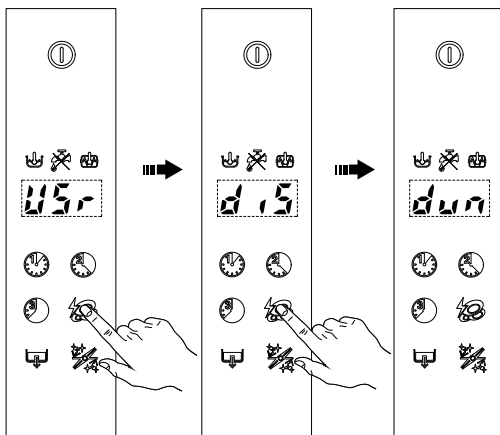
H.2 Setting the dispensers

All operations should be carried out with the appliance switched on, the hood open and no cycle selected.

Press, together, the "On/Off" and "Wash cycle 1" buttons for 5 seconds to access the programming mode and the display shows the parameter **USr**.



Press the button "L" (refer to F.1 Control panel description) twice to access the detergent and rinse aid adjustment parameters.



The display shows **dun** which is the first parameter of the dispenser family:

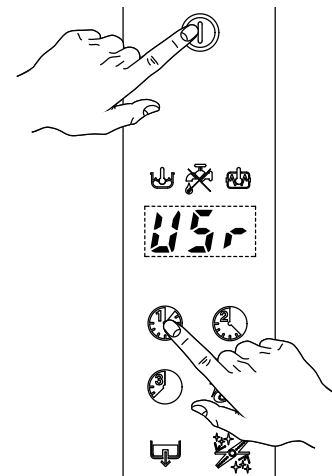
Parameter description		Value ¹
Unit of measure of dispensers (G-L = g/l or SEC = seconds)	dun	G-L
Initial amount of detergent	dIn	2.00 g/l
Initial amount of rinse-aid	rIn	0.12 g/l
Amount of detergent during the cycle	dEt	2.00 g/l
Amount of rinse-aid during the cycle	rAi	0.12 g/l

1. The values given in the table refer to the factory-settings.

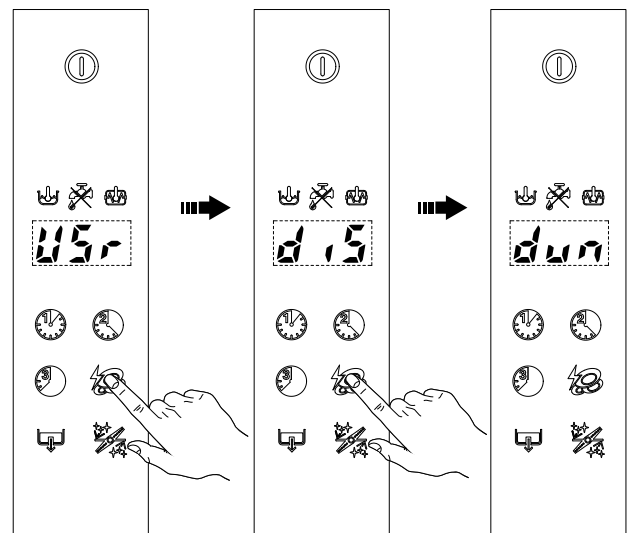
- Press the "Wash cycle 1" and "Wash cycle 2" buttons to select the parameter to modify.
- Press the button "L" to modify the parameter value.
- Press the "Wash cycle 1" and "Wash cycle 2" buttons respectively to decrease/increase the value.
- Press the button "L" to store the set value and return to parameter selection (see point 1).

For example, to adjust the parameter **dIn**, proceed as follows:

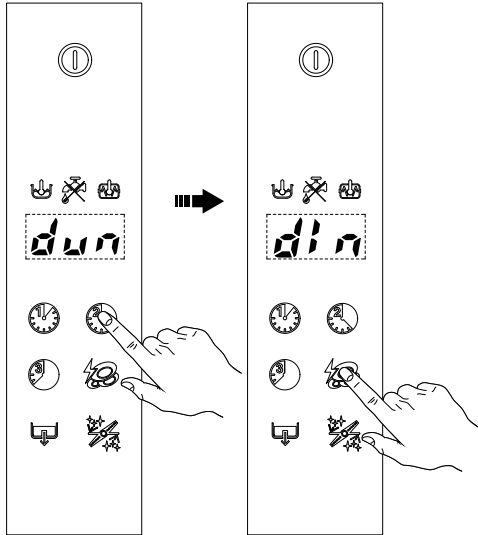
1. access the programming mode;



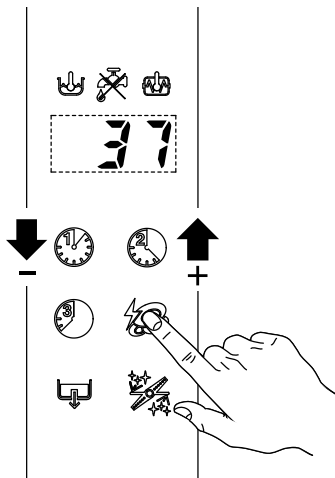
2. access the dispenser family;



3. select the parameter dIn;



4. modify the parameter value and press the button "L" to store the set value;



5. to exit the programming mode, press the "Wash cycle 3" button.



H.3 Note for external dispenser

With external dispensers, it may be more useful to have the parameters expressed in seconds, setting the parameter `dun` to `SEC=seconds`. In this way the value of the parameters represents the duration in seconds.

Listed below are special values usable when external automatic dispensers are connected to the equipment:

- if `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 `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 `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 `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.

Example 1

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

- `dun=SEC` the parameter value is in seconds;
- `dIn=0` the dispenser is not activated during filling of the tank;
- `dEt=181` the dispenser is activated during wash pump operation and, according to the concentration of detergent detected by the sensor, the correct amount of detergent is dispensed.

Example 2

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

- `dun=SEC` the parameter value is in seconds;
- `rAi=61` the dispenser is activated at each wash cycle simultaneously with operation of the filling solenoid valve. In this way avoiding modifications to the wiring of the machine.

Suggestion: 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.



NOTE!

For electrical connections, see the wiring diagram.



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 crystallisation, which may result in a breakdown of the dosing pump. Failure to observe this condition will invalidate the guarantee and product liability.

I DISHWASHER WITH INCORPORATED CONTINUOUS WATER SOFTENER

I.1 Hood type dishwasher with incorporated continuous water softener



IMPORTANT

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

These models have a continuous softener in the dishwasher water circuit. By means of special resins, this device removes the calcareous substances from the feed water, supplying decalcified water for washing.

For the continuous softener to work properly the resins must be regenerated periodically, with frequency depending on the hardness of the water and the number of wash cycles carried out.

Autonomy of the full salt container according to the change in inlet water hardness

Water hardness			The salt container must be filled approximately every ¹ :	Using cycle 2 for 30 cycles/day, the salt container must be filled approximately every ¹ :
°f	°d	°e		
15	8.4	10.6	2700	90
20	11.2	14	2180	73
25	14	17.6	1575	53
30	16.9	21.1	1035	35
35	19.7	24.6	855	30
40	22.5	28.1	675	23
45	25.2	31.6	450	15
50	28.1	35.1	270	9

The factory setting of max. outlet water hardness is 10 °f/ 5.6 °d/ 7 °e.

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

I.1.1 Salt container

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

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



CAUTION

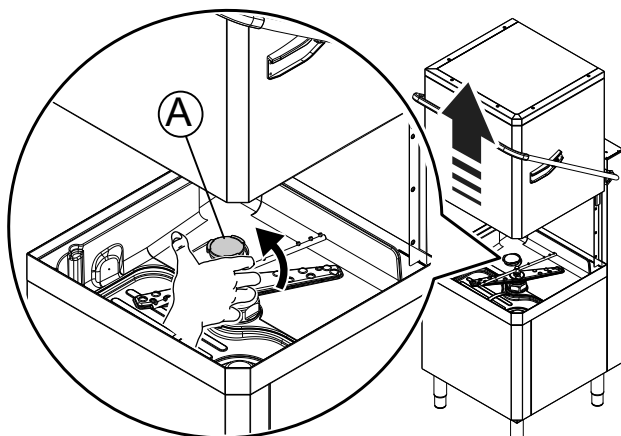
- Only use coarse salt with a purity level of 99.8% NaCl. The use of salt with a lower purity level can cause clogging of the salt container filter and malfunctioning of the water softener.
- Open the salt container only when the message **SAL End** is displayed. Opening the cap when the message **SAL End** is not displayed can cause spilling of the saline solution and compromise correct machine operation.

I.1.2 How to fill the salt container

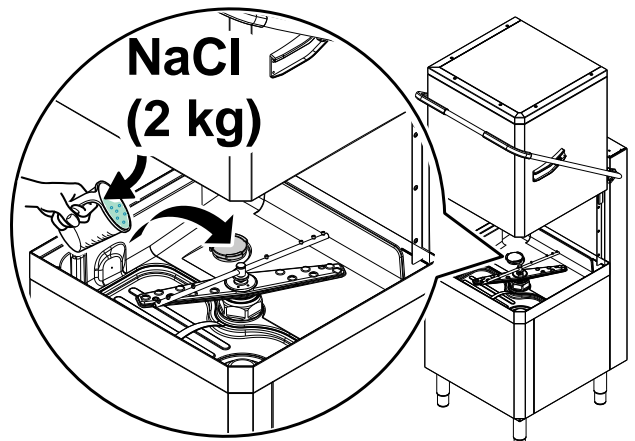
- Lift the hood and switch off the dishwasher by pressing ON/Off button.



- Unscrew cap "A" of the salt container, turning it counterclockwise.



- Pour approx. 2 kg of coarse salt [NaCl] in container "A" (an amount sufficient to fill the salt container up to the rim) using the special funnel supplied.



- Remove any traces of salt from the filling hole and the container thread of the closing cap.



NOTE!

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

- Refit the cap of container "A", turning it clockwise and making sure it is tight.



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.



NOTE!

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

J TROUBLESHOOTING

J.1 Alarms

Anomaly	Type of anomaly	Description	Possible causes	Actions
A1	Blocking Appliance stops	Lack of water	<ol style="list-style-type: none"> 1. The inlet water tap is closed. 2. The water inlet filter is clogged. 3. Too low pressure in hydraulic circuit. Water pressure is less than 5 lt/min or less than 0.5 bar [50 kPa]. 4. Overflow not inserted properly (only for appliances without drain pump). 5. Tank filling valve faulty. 	<ol style="list-style-type: none"> 1. Open the inlet water tap. 2. Clean the water inlet filter. 3. Check the water pressure of the main water tap. It must be 0.5 bar [50 kPa] at least. 4. Insert properly the overflow. 5. Please call Service Center.
B1	Warning	Inefficient drainage	<ol style="list-style-type: none"> 1. Overflow not removed. 2. The waste outlet pipe and/or the overflow aperture obstructed. 3. Air-trap and/or tank pressure switch dirty. 4. Drain pipe kink, pinch or twist, resulting in a water flow restriction. 5. Wash tank return pipe, connected to the pump vent, is kinked or blocked. 6. Drain pipe broken (only for versions with drain pump). 7. Drain pump blocked. 8. Tank pressure switch faulty. 	<ol style="list-style-type: none"> 1. Remove the overflow. 2. Remove any obstruction from the waste outlet pipe and/or the overflow aperture. 3. Clean the air-trap. 4. Make sure drain pipe does not kink, pinch or twist. 5. Please call Service Center. 6. Please call Service Center. 7. Please call Service Center. 8. Please call Service Center.
B2	Warning	Tank water level too high	<ol style="list-style-type: none"> 1. The waste outlet pipe and/or the overflow aperture obstructed. 2. Air-trap and/or tank pressure switch dirty. 3. Tank pressure switch faulty. 4. Tank filling valve YV1 faulty or blocked. 5. Tank filling valve relay stuck (RL5 on AP2 electronic board). 	<ol style="list-style-type: none"> 1. Remove any obstruction from the waste outlet pipe and/or the overflow aperture. 2. Clean the air-trap. 3. Please call Service Center. 4. Please call Service Center. 5. Please call Service Center.
C1	Warning	Boiler temperature rise too fast <i>Wash cycle longer than expected. Low washing performance. Rinse phase with cold water.</i>	<ol style="list-style-type: none"> 1. Missing water. 2. Boiler heating elements contactor stuck. 3. Heating element(s) power rating wrong. 	<ol style="list-style-type: none"> 1. Make sure the inlet water tap is opened. 2. Please call Service Center. 3. Please call Service Center.
C2	Warning	Boiler temperature too high <i>Wash cycle longer than expected. Rinse phase with cold water.</i>	<ol style="list-style-type: none"> 1. Wrong parameter set. 2. Boiler water level sensor faulty. 3. Boiler heating elements contactor stuck. 	Please call Service Center.
C3	Warning	Wash tank temperature too high <i>Low washing performance.</i>	<ol style="list-style-type: none"> 1. The inlet water is too hot. 2. Wrong parameter set. 3. Rinse temperature set too high. 4. Relay or PCB faulty. 	<ol style="list-style-type: none"> 1. Make sure the inlet water temperature is max. 60°C. 2. Please call Service Center. 3. Please call Service Center. 4. Please call Service Center.
C4	Warning	Tank temperature sensor broken or disconnected <i>Low washing performance.</i>	<ol style="list-style-type: none"> 1. Tank temperature sensor is unplugged. 2. Tank temperature sensor and/or sensor wire is broken. 	Please call Service Center.

Anomaly	Type of anomaly	Description	Possible causes	Actions
C5	Warning	Tank temperature sensor broken or short-circuited <u>Low washing performance.</u>	<ol style="list-style-type: none"> 1. Tank temperature sensor is unplugged. 2. Tank temperature sensor and/or sensor wire is broken. 	Please call Service Center.
C6	Warning	Boiler temperature sensor broken or disconnected <u>Low washing and rinse performances.</u>	<ol style="list-style-type: none"> 1. Boiler temperature sensor is unplugged. 2. Boiler temperature sensor and/or sensor wire is broken. 	Please call Service Center.
C7	Warning	Boiler temperature sensor broken or disconnected <u>Low washing and rinse performances.</u>	<ol style="list-style-type: none"> 1. Boiler temperature sensor is unplugged. 2. Boiler temperature sensor and/or sensor wire is broken. 	Please call Service Center.
C9	Blocking Appliance stops	Automatic hood does not work <u>Switch OFF/ON the appliance. If the problem persists call the service centre.</u>	<ol style="list-style-type: none"> 1. One or more micro-switches of the door does not work correctly. 2. Automatic hood motor faulty. 3. Rack of hood blocked. 	Please call Service Center.
C10	Warning	Rinse temperature sensor broken or disconnected <u>Low washing and rinse performances.</u>	<ol style="list-style-type: none"> 1. Rinse temperature sensor is unplugged. 2. Rinse temperature sensor and/or sensor wire is broken. 	Please call Service Center.
C11	Warning	Rinse temperature sensor broken or short-circuited <u>Low washing and rinse performances.</u>	<ol style="list-style-type: none"> 1. Rinse temperature sensor is unplugged. 2. Rinse temperature sensor and/or sensor wire is broken. 	Please call Service Center.
C12	Blocking Appliance stops	Tank level sensor does not work	<ol style="list-style-type: none"> 1. Air-trap dirty or water in the hose that it connects the pressure switch SP1. 2. SP1 sensor connector CX8/X9 is unplugged. 3. SP1 sensor is faulty or broken. 	<ol style="list-style-type: none"> 1. Clean the tank and remove any visible clogging from the air trap. Switch OFF/ON: if the problem persists call Service Centre. 2. Please call Service Center. 3. Please call Service Center.
C13	Warning	Rinse pump does not work <u>Low rinse performance.</u>	<ol style="list-style-type: none"> 1. Rinse pump malfunction. 2. Air trap hose is kinked or blocked. 	Please call Service Center.
E1	Warning for manual model Blocking Appliance stops for automatic model	Communication error	<ol style="list-style-type: none"> 1. Communication cable connector faulty. 2. Hardware faulty. 	Please call Service Center.
E2	Warning	Tank temperature low <u>Low washing performance.</u>	<ol style="list-style-type: none"> 1. Tank heating element faulty. 2. Heating element connection faulty. 3. Power rating wrong. 4. Relay RL4 on AP2 electronic board faulty. 5. Overheating thermostat trip or faulty. 	Please call Service Center.

Anomaly	Type of anomaly	Description	Possible causes	Actions
E2	Warning	Boiler temperature low <i><u>Low rinse performance.</u></i>	<ol style="list-style-type: none"> 1. Heating element or elements faulty. 2. Heating element connection faulty. 3. Heating element contactor faulty. 4. Heating element contactor power supply missing. 	Please call Service Center.
F21 – F22¹	Warning		<p>Resin regeneration cycles are not performed.</p> <p>The appliance continues to operate without water softener.</p>	Please call Service Center.

1. Only for appliances with incorporated continuous water softener.

CE