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# INSTALLATION DIAGRAM WT830EAG / PW1EAG

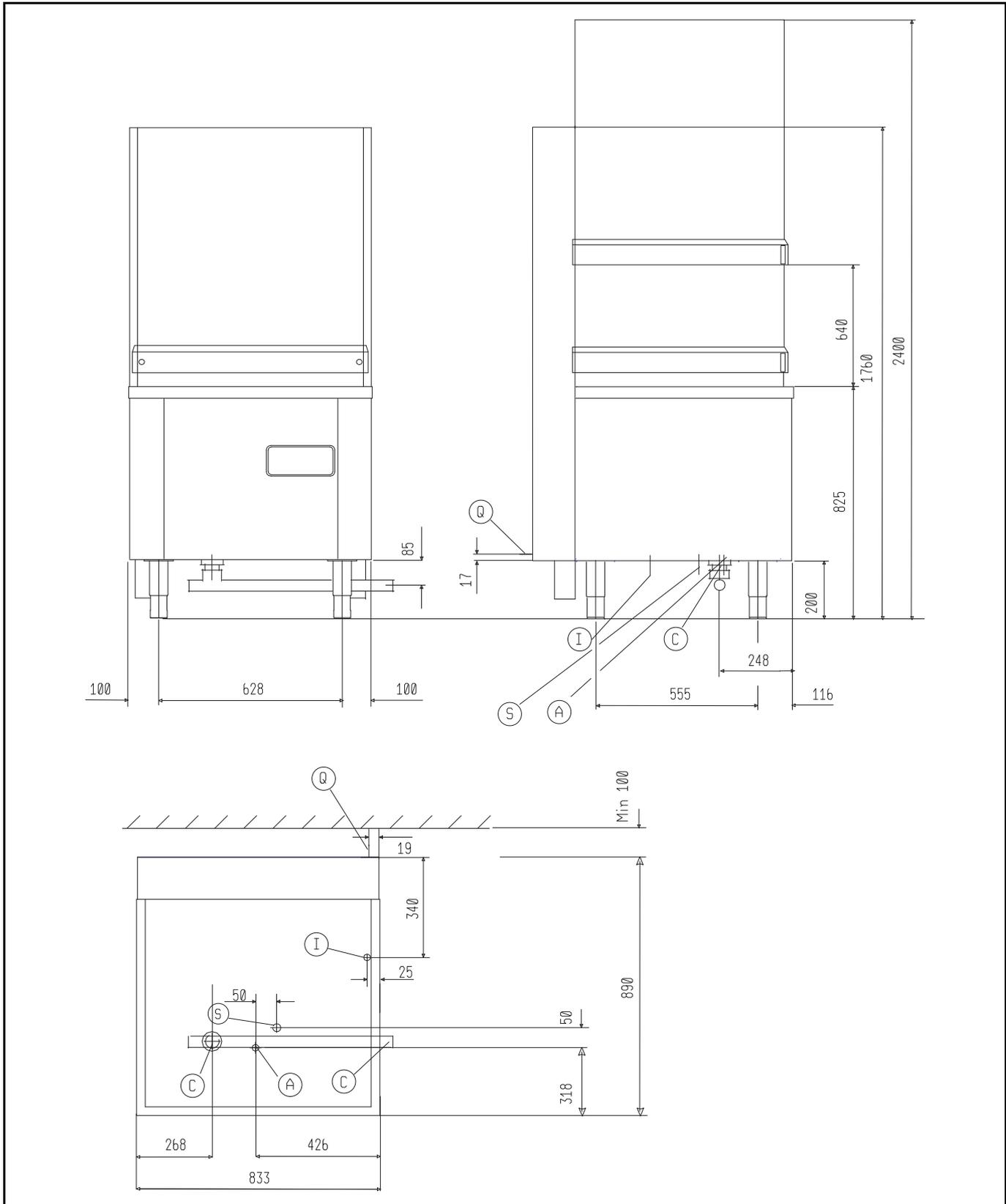


Fig. 1.a

## IMPORTANT

**if the appliance is not installed against a wall, suitable protection must be provided for the movement of the hood.**

## Legend Fig. 1.a

- B** - Water inlet pipe with  $\text{\O} 3/4''$  G fittings
- C** - Threaded waste outlet pipe connector  $1'' 1/2$  G ( $\text{\O} 47$  mm)
- I** - Power supply
- S** - Pipe inlet for detergents
- P** - Open / close hood
- Q** - Unipotential screw

# INSTALLATION DIAGRAM WT850EAG / PW2EAG

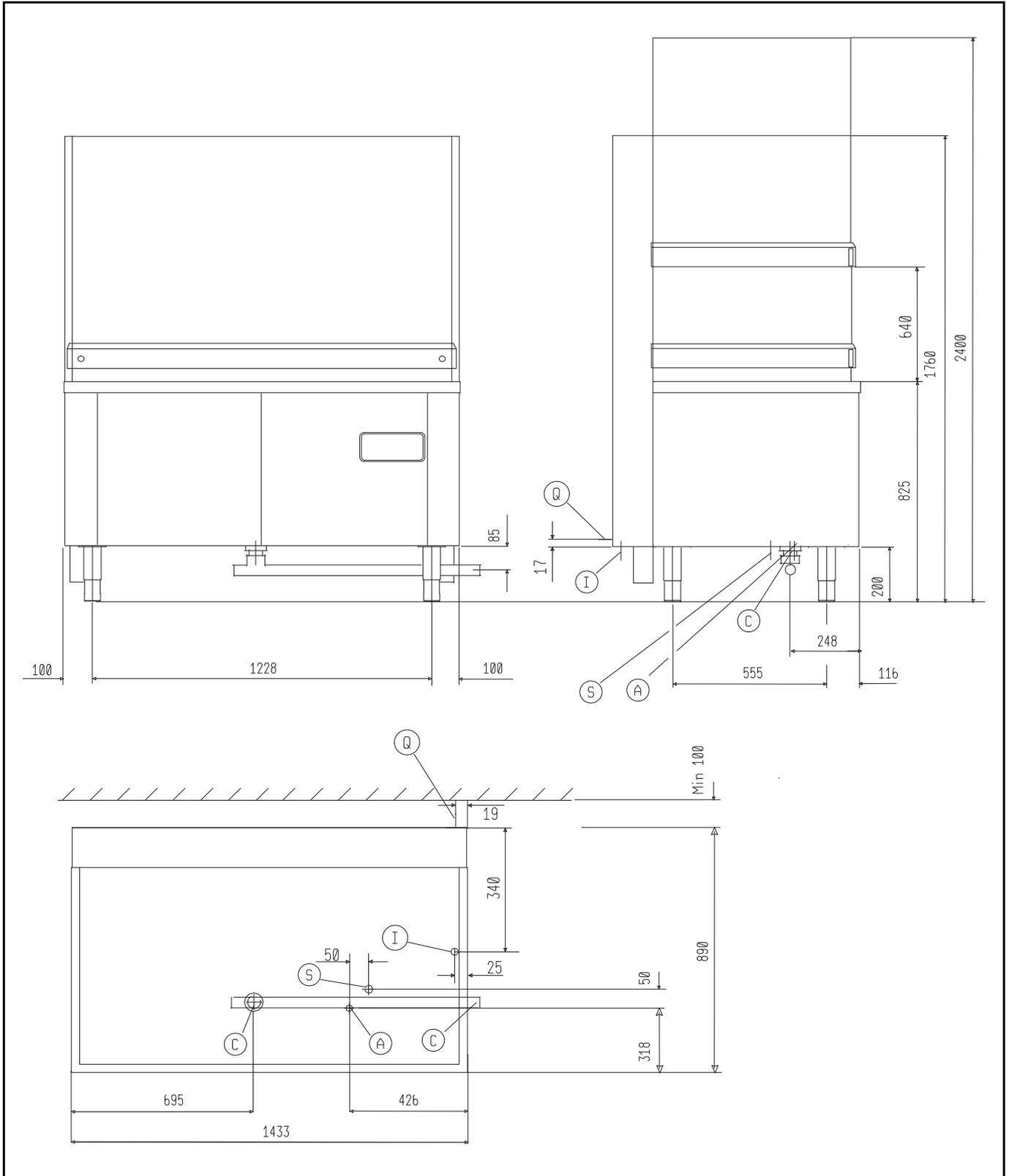


Fig. 1.b

**IMPORTANT**

If the appliance is not installed against a wall, suitable protection must be provided for the movement of the hood.

**Legend Fig. 1.b**

- B** - Water inlet pipe with Ø 3/4" G fittings
- C** - Threaded waste outlet pipe connector 1" 1/2 G (Ø 47 mm)
- I** - Power supply
- S** - Pipe inlet for detergents
- P** - Open / close hood
- Q** - Unipotential screw

**WARNING**

**CAREFULLY READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS BEFORE INSTALLING THIS APPLIANCE. INCORRECT INSTALLATIONS, ADAPTATIONS OR ALTERATIONS COULD CAUSE DAMAGE TO PROPERTY OR INJURY TO PERSONS. MALICIOUS DAMAGE, DAMAGE DUE TO NEGLIGENCE, OR TO FAILURE TO COMPLY WITH INSTRUCTIONS AND REGULATIONS, OR TO INCORRECT CONNECTIONS OR UNAUTHORISED TAMPERING INVALIDATE ANY WARRANTY AND RELIEVE THE MANUFACTURER OF ALL LIABILITY.**

1. Carefully read this instructions booklet, as it contains important advice for safe installation, operation and maintenance.  
Keep this booklet to hand in a safe place for future reference by other operators.
2. **Installation should be carried out by qualified engineers, in accordance with current regulations and with the manufacturer's instructions.**
3. The appliance should only be used by persons specifically trained in this operation.
4. Switch off the appliance in the event of failure or malfunctioning.

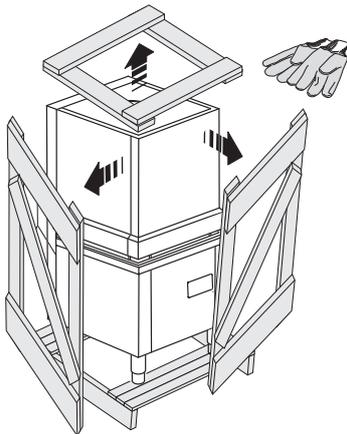
Only have the appliance repaired by a service centre authorised by the manufacturer and ask for original spare parts.

**A1 HANDLING**

Use suitable means to move the appliance: a lift truck or fork pallet trucks (the forks should reach more than halfway beneath the appliance).

**A2 UNPACKING**

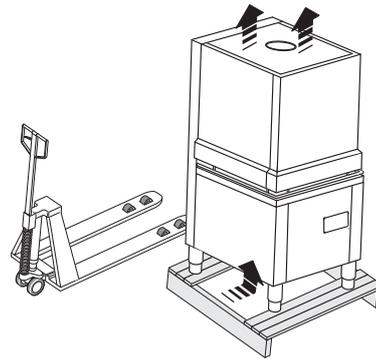
Wear protective gloves to unpack.



**Fig. 2**

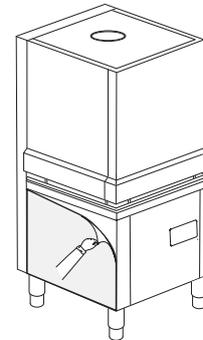
Lift the appliance using a lift truck (be careful about the water connections under the appliance), remove the

base and position the appliance where it is to be installed.



**Fig. 3**

Remove the protective film and ensure that the packaging material is disposed of correctly in compliance with the regulations in force in the country where the product is to be used.



**Fig. 4**

**A3 DISPOSAL**

All the packaging materials are environment friendly. They may be kept without danger, recycled or burned in a special waste incineration plant. Recyclable plastic components are marked as follows:

	<b>polyethylene</b>	<b>external wrapping film, instruction bag.</b>
	<b>polypropylene</b>	<b>top packaging panels, straps.</b>
	<b>polystyrene foam</b>	<b>protective surround elements.</b>

Wood and cardboard components may be disposed of according to local regulations in force. Appliances that have reached the end of their service life should be suitably disposed of. The appliance should be dismantled according to regulations in force. All metal parts are in stainless steel (AISI 304) and are removable. Plastic parts are marked with the symbol of the material.

**A4 TECHNICAL DATA**

MODEL		WT830EAG / PW1EAG	WT850EAG / PW2EAG
Supply voltage:	V	400...415- 3N~	400...415- 3N~
Frequency	Hz	50 o 60	50 o 60
Max. power input	kW	13,5 / 20,5 (*)	15,5 / 26 (*)
Boiler heating elements	kW	10,5	10,5
Tank heating elements	kW	7	10,5
Water supply press.	kPa [bar]	50...700 [0,5...7]	50...700 [0,5...7]
Water supply temp.	°C	50	50
Water supply hardness	°fH [°dH]	14 [8] max	14 [8] max
Rinse cycle water consumption	l	6,2	7,7
Boiler capacity	l	16	16
Tank capacity	l	95	110
Standard cycle time with water supply at 50°C	sec.	180-360-540	180-360-540
Legal noise level Leq	dB(A)	<70	<70
Protection ratinge		IPX4	IPX4
Net weight	kg	200	310
Power supply cable		H07RN-F	H07RN-F

(\*) = If activated by software, coincidence of tank and boiler heating elements.

**Table 1**

	400...415V 3N	
	C	S
<b>13.5 kW</b>	<b>5X4</b>	<b>25A 3P+N</b>
<b>20,5 kW</b>	<b>5X6</b>	<b>40A 3P+N</b>
<b>15,5 kW</b>	<b>5X6</b>	<b>40A 3P+N</b>
<b>26 kW</b>	<b>5X10</b>	<b>50A 3P+N</b>

C = Power supply cable  
S = On/Off switch

**Table 2**

Standard cycle time may vary should the inlet water temperature be different from that indicated above.

## B INSTRUCTIONS FOR THE INSTALLER/MAINTENANCE PERSON

Install a disconnecting switch with a capacity at least equal to that given in the technical data table, a 30mA residual current circuit breaker and an overcurrent device (magnetothermal cut-out with manual reset or fuse) between the appliance and the mains power outlet.

### RATING PLATE

The rating plate contains identification and technical data and is located on the right-hand side panel of the appliance (Fig. 5).

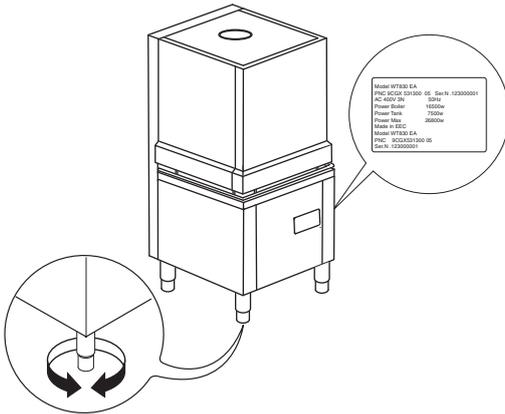


Fig. 5

### B1 WATER CONNECTION

- Position the dishwasher and level the appliance by turning the relative height-adjustable feet (Fig. 5).
- Connect the appliance water supply pipe "A" (Fig. 1.a/Fig. 1.b) to the mains, fitting a cut-off cock, the filter provided and a pressure gauge between the appliance and the mains (Fig. 6).

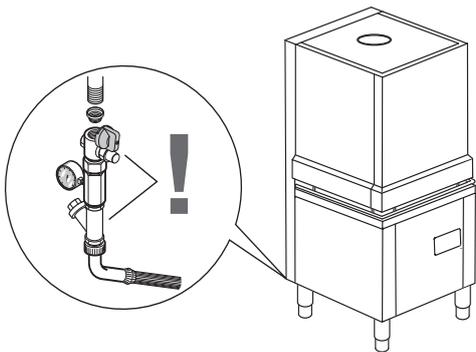


Fig. 6

- Check that the **dynamic** water supply **pressure**, measured between the appliance and the main, is **between 50 and 700 kPa** for machines with atmospheric boiler (test while dishwasher tank or boiler is filling with water).

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

Connect the waste outlet pipe "C" (Fig. 1.a/Fig. 1.b) to the main drain pipe, fitting a trap, or place the outlet pipe over an S trap set into the floor.

### B2 ELECTRICAL CONNECTION

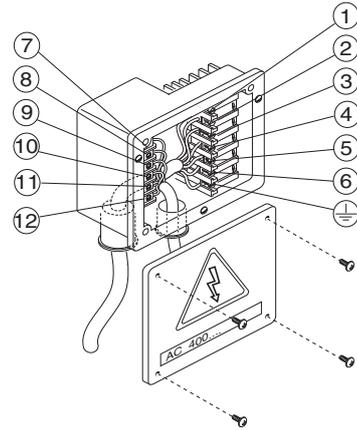


Fig. 7



**CAUTION**  
THE EARTH AND ELECTRICAL CONNECTIONS SHOULD BE IN COMPLIANCE WITH NATIONAL REGULATIONS.

- Before carrying out the electrical connection, check that the voltage and frequency on the appliance rating plate correspond to those of the mains electricity supply.
- The earth wire at the terminal end must be longer (max. 20 mm) than the phase wires.
- Connect the earth wire of the power supply cable to an efficient earth clamp. The appliance must also be included in a unipotential system, the connection being made through the screw "Q" (Fig. 1.a/ Fig. 1.b) marked with the symbol "⚡". The unipotential wire must have a cross section of 10 mm<sup>2</sup>.

**Power supply 400...415V 3N**  
(standard configuration)

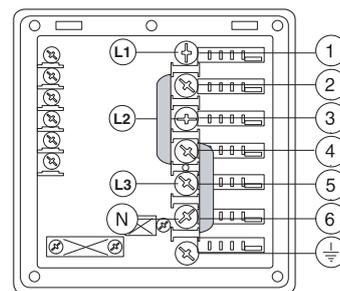


Fig. 8

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 technical data table), connect the three phases to terminals 1, 3 and 5, the neutral to terminal 6 and the earth wire to the terminal ⚡.

**Connections provided for energy control**

This appliance is designed for an external energy consumption control.

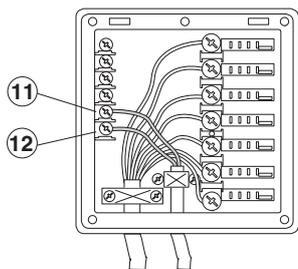


Fig. 9

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.

**Safety devices**

- An automatic reset thermal over-heat device incorporated in the windings of the electric pump cuts off the electricity supply in the case of malfunctioning.
- In the event of water mains failure, a device prevents water in the boiler from returning into the mains.
- An overflow pipe, connected to the drainage outlet, maintains the water in the tank at a constant level.
- If any object/part of the body comes into contact with the edge of the hood while it is lowering, a device stops the hood and raises it again.



**CAUTION**

After installation of the appliance, check the correct sequence of phases L1, L2, L3. If this is not correct, alarm code “B3” will appear on the display.

Failure to comply with safety rules and regulations relieves the manufacturer of all liability.

**B3 WARNING MESSAGES DISPLAYED ON THE CONTROL PANEL**

**A1 NO WATER**

- Check that the cock is open
- Check that the water inlet filter is clean
- Check the minimum mains pressure
- Check that the overflow pipe is inserted

**B1 INEFFICIENT DRAINAGE**

- Check if the overflow has been removed.
- Check for obstruction on the waste outlet pipe and the overflow aperture.

**B2 TANK WATER LEVEL TOO HIGH**

- Check for obstruction on the waste outlet pipe and the overflow aperture.

**B3 C1..C9 CALL THE SERVICE CENTRE**

**E1..E8 CALL THE SERVICE CENTRE**

- The appliance continues to operate, but appropriate checks by a technician are recommended.

**B4 DETERGENT/RINSE-AID DISPENSERS AND SETTING**

If the appliance is connected to a water softener or osmotic device, contact the detergent supplier for a specific product.

Peristaltic dispensers (rinse-aid and detergent) require periodic maintenance. The internal hose of the rinse-aid dispenser should undergo periodic maintenance (at least once or twice a year).

**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.

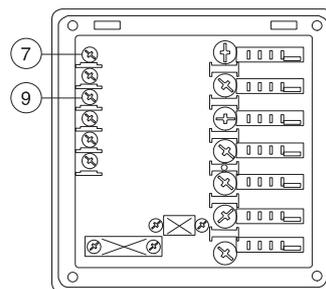


Fig. 10

- 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 “Setting the dispensers”).

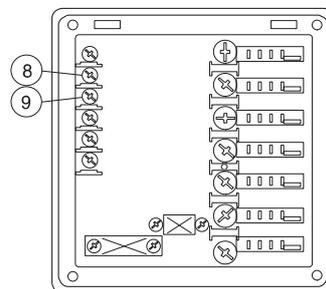
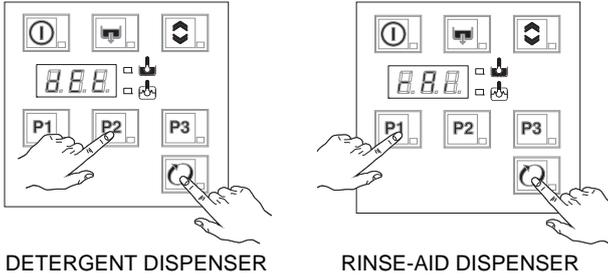


Fig. 11

- 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 “setting the dispensers” paragraph).

## MANUAL ACTIVATION

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



DETERGENT DISPENSER

RINSE-AID DISPENSER

## B5 SETTING THE DISPENSERS

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

### LEGEND

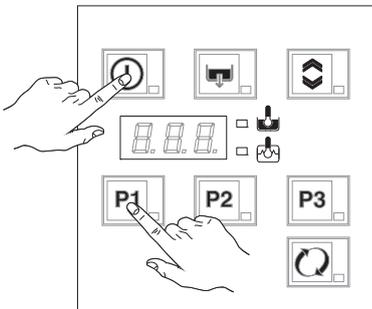
 Increase

 Decrease

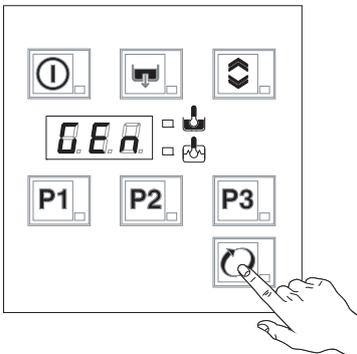
 Confirm or select next parameter

### SEQUENTIAL START

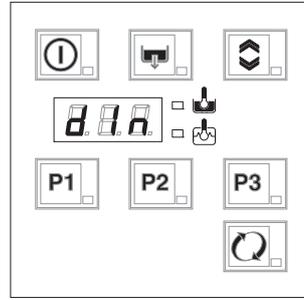
Press the indicated buttons simultaneously for 5 seconds:



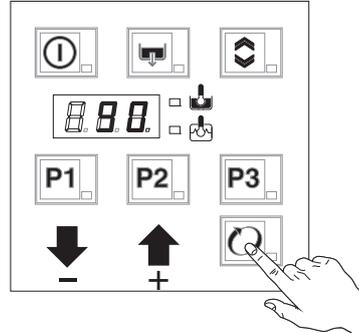
Display of programming mode:



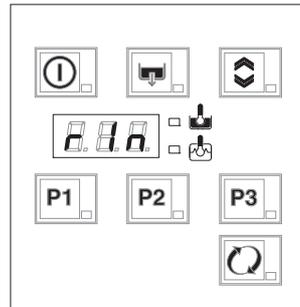
Initial amount of detergent:



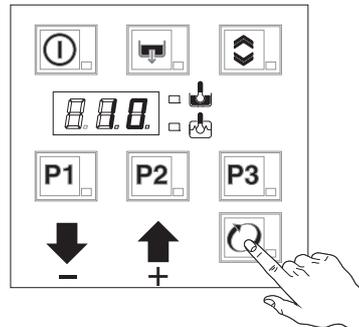
Setting the activation time:



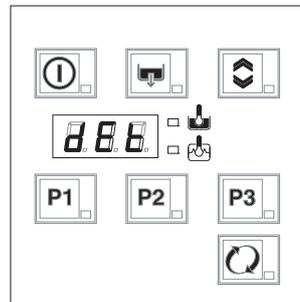
Initial amount of rinse-aid:



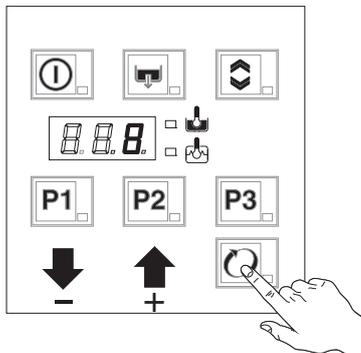
Setting the activation time:



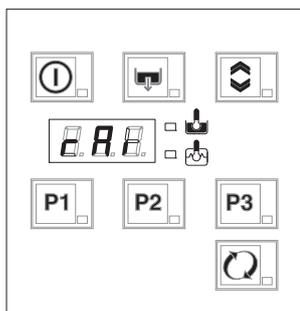
Amount of detergent during the cycle:



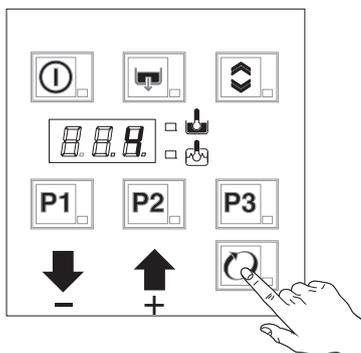
Setting the activation time:



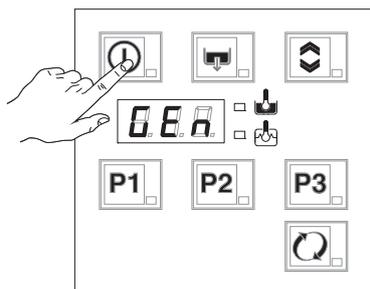
Amount of rinse-aid during the cycle:



Setting the activation time:



Exit from programming mode:



**Notes for external dispensers:**

- if  $dEt = 101$  the **detergent dispenser** only operates during **wash pump** operation; terminals **7-9** of the main terminal board are powered at the same time.
- if  $dEt = 102$  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  $rA = 61$  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  $rA = 62$  the **rinse-aid dispenser** only operates during **wash pump** operation; terminals **8-9** of the main terminal board are powered at the same time.

For connections, see the wiring diagram.

**Example:**

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

$dIn = 0$  the dispenser is not activated during filling of the tank.

$dEt = 101$  the dispenser is activated during wash pump operation and, thanks to the concentration measured by the conduction sensor, the correct amount of detergent is dispensed.

**Changing the detergent/rinse-aid type**

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.

**B6 MAINTENANCE**

- Descale the boiler, the internal surfaces of the tank and the appliance water piping once or twice a year.
- Descale the rinse and wash jets every month using vinegar or a descaling agent.
- The internal hose of the rinse-aid and detergent peristaltic dispenser should undergo periodic maintenance (once or twice a year).

**Prolonged period of inactivity**

If the dishwasher is not to be used for a long time, proceed as follows:

- Close the water supply cock.
- Completely drain the tank.
- Remove and carefully clean the filters.
- Completely drain the incorporated dispenser hoses, removing them from the containers. Repeat the procedure described in the paragraph "Manual activation" at least 3 times.
- Completely drain the boiler.
- Spread a thin film of Vaseline oil over all the stainless steel surfaces.

**Preventive maintenance**

The preventive maintenance call may be activated (see service manuals).

Upon reaching the set number of cycles (e.g. 20000),



This message advises calling a qualified technician for a general check-up of the state of the appliance.

# C

# INSTRUCTIONS FOR THE USER

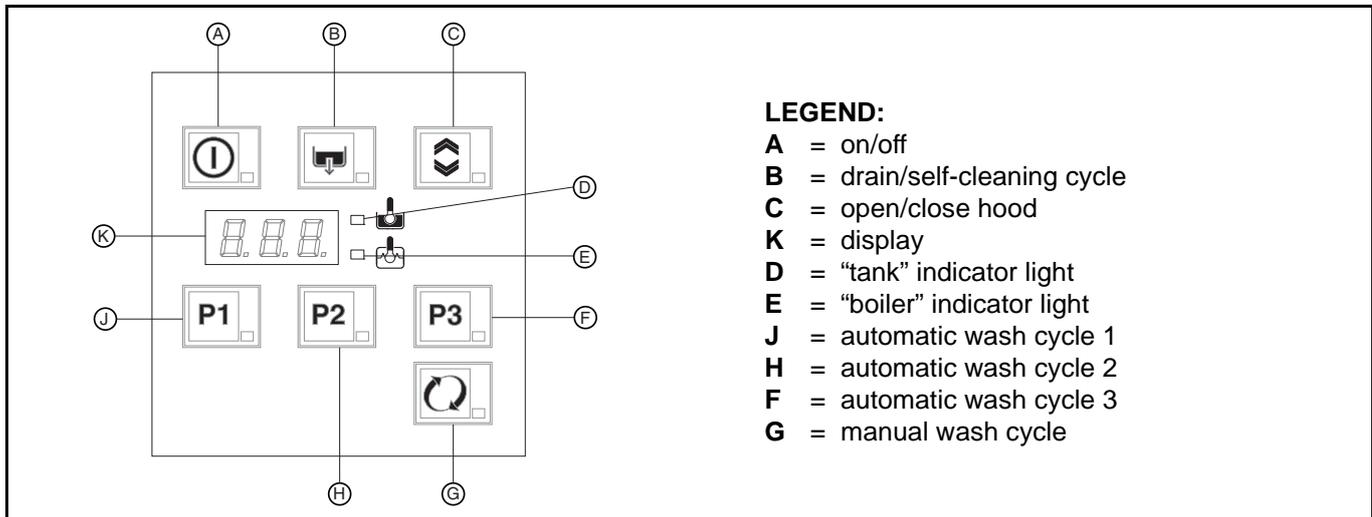
Our appliances have been studied and optimised to give high performance. This appliance must be used exclusively for the purpose for which it has been designed, i.e. for washing dishes with water and specific detergents. Any other use is to be considered improper.

This appliance does not carry out the rinse cycle should there be no supply water; it stops all functions with an error message "A1" (also see "Warning messages").

### TIPS

- Carry out a couple of cycles without dishes to flush out any industrial grease which has remained in the tank and piping.
- Avoid washing decorated dishes.
- Do not allow silverware to come into contact with other metals.
- Do not allow food to dry on the dishes.
- Remove large food scraps from the dishes to prevent clogging the filters.
- Pre-wash the dishes by spraying them with cold or lukewarm water, without using any detergent.
- Use automatic dispensers for the detergent.
- If there is no automatic dispenser, pour a non-foaming detergent into the tank when the water has reached the washing temperature.

### CONTROL PANEL



- LEGEND:**
- A = on/off
  - B = drain/self-cleaning cycle
  - C = open/close hood
  - K = display
  - D = "tank" indicator light
  - E = "boiler" indicator light
  - J = automatic wash cycle 1
  - H = automatic wash cycle 2
  - F = automatic wash cycle 3
  - G = manual wash cycle

Fig. 12

The temperature shown on the display is that of the boiler if the indicator light "E" is on or of the tank if the light "D" is on. The tank temperature is displayed during the wash cycle and the boiler temperature during the rinse cycle.

### C1 STARTING

- Open the water supply cock.
- Switch on at the mains.
- Switch on the dishwasher by pressing the button "A".



The indicator light of button "A" (Fig. 12) comes on, indicating that the dishwasher is powered and that water is being introduced and heated. The word "FILL" is shown on the display during the entire filling and heating stage:



If the hood is opened during this stage the message "CLOSE" will appear on the display:



- Raise the hood by pressing the open/close button "C" (Fig. 12), or else the buttons located on the hood (see buttons "P" - Fig. 1.a and Fig. 1.b). Then make sure all the internal parts are in their seats.

The filling and heating stage has finished when the display shows the tank temperature:



To display the boiler temperature during heating of the tank, leave the hood and press the button "J" (Fig. 12).



### C2 WASH CYCLES

The wash cycle includes one wash with hot water and detergent (min 55 °C) and one rinse with hot water and rinse-aid (min 82 °C).

#### Table of times

Standard cycle time with supply water at 50 °C.

	I	II	III	IV
WT830EAG / PW1EAG	180"	360"	540"	MANUAL
WT850EAG / PW2EAG	180"	360"	540"	MANUAL

A device lengthens the cycle time if the water in the boiler has not reached the minimum temperature for correct rinsing.

The cycle times and the temperature may be personalised (e.g. increase of the rinse time and temperature).

The cycle times should only be set by a specialised technician.

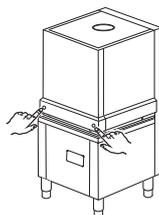
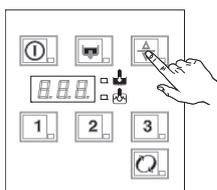
### C3 OPERATION

The filling and heating stage has finished when the display shows the tank temperature:



The appliance is then ready for use:

- Raise the hood by pressing one of the open/close buttons.



- Pour the correct quantity of detergent into the tank if there are no automatic dispensers.
- Load the dirty dishes on to the rack.
- Lower the hood by pressing one of the open/close buttons.
- Select the wash cycle. The corresponding indicator light switches on and the wash cycle starts:

#### - Cycle I

For lightly soiled dishes press button "J" (Fig. 12), (see table of times).



#### - Cycle II (recommended)

For normally dirty dishes press button "H" (Fig. 12), (see table of times).



#### - Cycle III

For very dirty dishes press button "F" (Fig. 12), (see table of times).

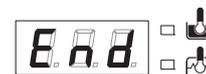


#### - Manual cycle IV

For particularly dirty dishes with dried food residue, dishes with a special shape or for other specific needs of the user press button "G" (Fig. 12), which initiates a continuous wash until the operator selects an automatic cycle.



- Press the current cycle button to stop the cycle running.
- If the hood is opened during a cycle, the wash cycle will stop until it is closed again.
- If another cycle is selected while a cycle is running, the wash stage will continue with the set times for the last selected cycle.
- When the wash is finished the dishwasher emits a series of beeps, the hood rises automatically and the message "END" blinks on the display:



The cleaned dishes can now be removed.

#### IMPORTANT

**The appliance will not remove burnt food deposits from dishes. Dishes with burnt-on deposits should be cleaned mechanically/chemically before putting them in the dishwasher.**

**Change the water in the tank at least once a day.**

#### Supplied racks

- Tray rack: WT830EA = 1 piece; WT850EA = 2 pieces.

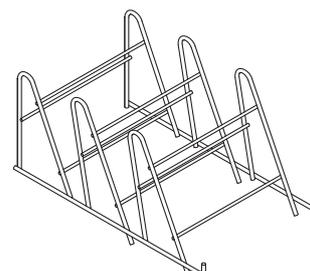


Fig. 13

#### C4 END OF WORK AND DAILY CLEANING

The appliance is designed to carry out an automatic cleaning cycle to help flush out any residues and to guarantee greater health and hygiene.

- Lift the hood and take out the clean dishes.
- Remove the tank filter "C" and the overflow "W" to drain the water from the tank.

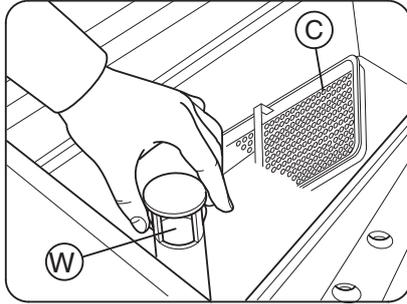
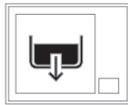


Fig. 14

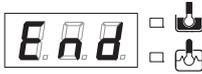
- Close the hood.
- Select the drain cycle by pressing button "B" (Fig. 12).



The message "CLE" ("CLEAN") will be displayed throughout the drain cycle:



- After a few minutes, 3 beeps indicate the end of the cleaning cycle and "END" blinks on the display:



- Switch off the dishwasher by pressing button "A" (Fig. 12).



- Switch off at the mains.
- Close the water supply cock.
- Before operating the appliance again, replace the components that have been removed.

#### Cleaning the nozzle jets

- Remove the top and bottom jets "F" and "I", unscrewing the ring nut "H".

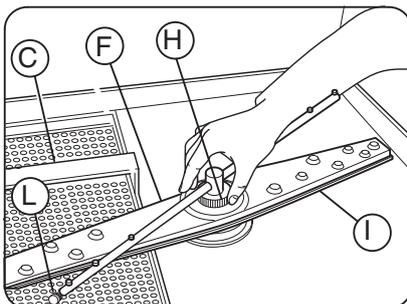


Fig. 15

- Unscrew plugs "L" from the rinse jets and clean using a water spray. Do not use sharp implements to clean the nozzle holes, which could otherwise be damaged.
- Upon completion of cleaning operations, replace the parts removed previously.

#### Cleaning the exterior surfaces

Before carrying out any cleaning operations, turn off the power at the mains.

Clean the stainless steel surfaces using warm soapy water; never use detergents containing abrasive substances nor steel scrapers, common wire wool, brushes or scrapers; rinse thoroughly using a wet cloth and carefully wipe dry.

Clean the control panel using a soft damp cloth and a neutral detergent if necessary.

Do not wash the appliance using direct or high-pressure water jets.

To reduce the emission of pollutants into the environment, clean the appliance (externally and where necessary internally) with products having a biodegradability of over 90%.

Leave the hood partially raised up a few centimetres in periods when the appliance is not being used.

#### C5 WARNING MESSAGES DISPLAYED ON THE CONTROL PANEL

##### A1 NO WATER

- Check that the cock is open
- Check that the water inlet filter is clean
- Check the minimum mains pressure
- Check that the overflow pipe is inserted

##### B1 INEFFICIENT DRAINAGE

- Check if the overflow has been removed.
- Check for obstruction on the waste outlet pipe and the overflow aperture.

##### B2 TANK WATER LEVEL TOO HIGH

- Check for obstruction on the waste outlet pipe and the overflow aperture.

##### B3 C1..C9 CALL THE SERVICE CENTRE

##### E1..E8 CALL THE SERVICE CENTRE

- The appliance continues to operate, but appropriate checks by a technician are recommended.

<b>DISHWASHER DOES NOT WASH WELL</b>	<ol style="list-style-type: none"> <li>1. Check if the suction filter is dirty and clean it thoroughly.</li> <li>2. Check if the wash jets are clogged by solid food remains.</li> <li>3. Check that the initial amount of detergent or subsequent additions are correct.</li> <li>4. The selected wash cycle is too short. Repeat the cycle.</li> <li>5. Check that the tank temperature is between 55°C and 65°C.</li> <li>6. Check that the dishes are stacked correctly in the racks.</li> </ol>
<b>EXCESSIVE FOAM IN THE TANK</b>	<ol style="list-style-type: none"> <li>1. Check that the wash water temperature is not less than 50 °C.</li> <li>2. Check if the amount of product dispensed by the detergent dispenser is excessive (see “setting the dispensers” paragraph).</li> <li>3. Ensure that the tank has not been cleaned with unsuitable cleaners. Drain the tank and rinse thoroughly before new wash cycles.</li> <li>4. If a foaming detergent has been used, drain and refill the tank with water until the foam disappears.</li> </ol>
<b>THE WASH OR RINSE ARMS TURN SLOWLY</b>	<ol style="list-style-type: none"> <li>1. Remove and thoroughly clean the arms.</li> <li>2. Clean the wash pump suction filter.</li> </ol>

