

Installation manual

Jetsave Dosing System

For washer extractors L6000 with Clarus Vibe



Electrolux
PROFESSIONAL

Contents

Contents

1	General safety information	5
2	Symbols	6
3	Introduction.....	7
4	Recycling instruction for packaging.....	8
5	Installation	9
5.1	Installation of the Jetsave system.....	9
5.2	Electrical connection	15
5.3	Selection of system/pumps.....	18
5.4	Pairing the pumps / Addressing the I/O board.....	18
5.5	Priming the pumps	20
5.6	Calibrating the pumps	20
5.7	Installation of low level probe (option)	21
5.8	Connection with low level sensors/probes.....	21
6	Technical specification	23
7	Trouble shooting and service.....	23
8	Disposal information	24
8.1	Disposal of appliance at end of life	24
8.2	Disposal of packing.....	24

The manufacturer reserves the right to make changes to design and component specifications.








1 General safety information

These installation, operation and servicing instructions shall only be performed by qualified personnel.

The Jetsave system must be installed in accordance with all applicable electrical and plumbing standards. All washer extractor and dispenser power must be isolated during installation and/or any time the dispenser is maintained or serviced.

- Always verify all voltage sources with a meter.
- Do not locate the pump-stand under plumbing fittings that could leak.
- Ensure that the installer has enough room to carry and lift the units when installing the Jetsave system.
- Do not pick up unit by supply cord.
- Wear PPE (Personal Protective Equipment) when dispensing chemicals or other materials or when working in the vicinity of all chemicals, filling, or emptying equipment.
- Always observe safety and handling instructions of the chemical manufacturers.
- You must follow all precautions as advised on the product safety data sheet.
- Always direct discharge away from you or other persons or into approved containers.
- Always dispense cleaners and chemicals in accordance with manufacturer's instructions.
- Always exercise caution when maintaining your equipment.
- Always re-assemble equipment according to instruction procedures. Be sure all components are firmly screwed or latched into position.
- Keep equipment clean to maintain proper operation.
- **NOTE! This appliance is not be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.**
- 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.
- Children shall not play with the appliance.
- Cleaning and user maintenance shall not be made by children without supervision.
- The appliance is not designed to be used at an altitude higher than 2000m.
- **NOTE! Appliances connected to the water mains by detachable hose should use hoses provided with the appliance and should not reuse previous.**
- **NOTE! If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified person, in order to avoid a hazard.**
- **NOTE! A locally approved back-flow prevention device must be installed with the appliance for safe and legal operation. An approved back-flow prevention is provided: 432930084 DOUBLE CHECK VALVE.**
- **NOTE! It is a legal requirement, if the unit is supplied from the water mains, that a backflow device is installed offering protection equal or higher than the chemical class being used. This is to prevent back siphoning of non-potable substances into the water mains.**

2 Symbols

	<p>Warning/Caution An appropriate safety instruction should be followed or caution to a potential hazard exists.</p>
	<p>Dangerous voltage To indicate a hazardous arising from dangerous voltages.</p>
	<p>Protective earth (ground) To identify any terminal which is intended for connection to an external conductor for protection against electric shock in case of a fault, or the terminal of a protective earth (ground) electrode.</p>
	<p>Refer to product manual Read the instructions before using the machine.</p>
	<p>Protective Personal Equipment The use of appropriate eyewear shall be used.</p>
	<p>Protective Personal Equipment The use of appropriate safety gloves shall be used.</p>
	<p>Protective Personal Equipment The use of appropriate protective clothing shall be used.</p>

3 Introduction

The Jetsave system is designed to be connected directly to the washer extractor using two multi pin connectors.

The Jetsave controls the amount of product dispensed and product delays if required.

The Jetsave system connected and supplied from the washer extractor 230V, 50/60Hz 0.1A (Max).

The Jetsave is an integrated water flush chemical dispensing system.

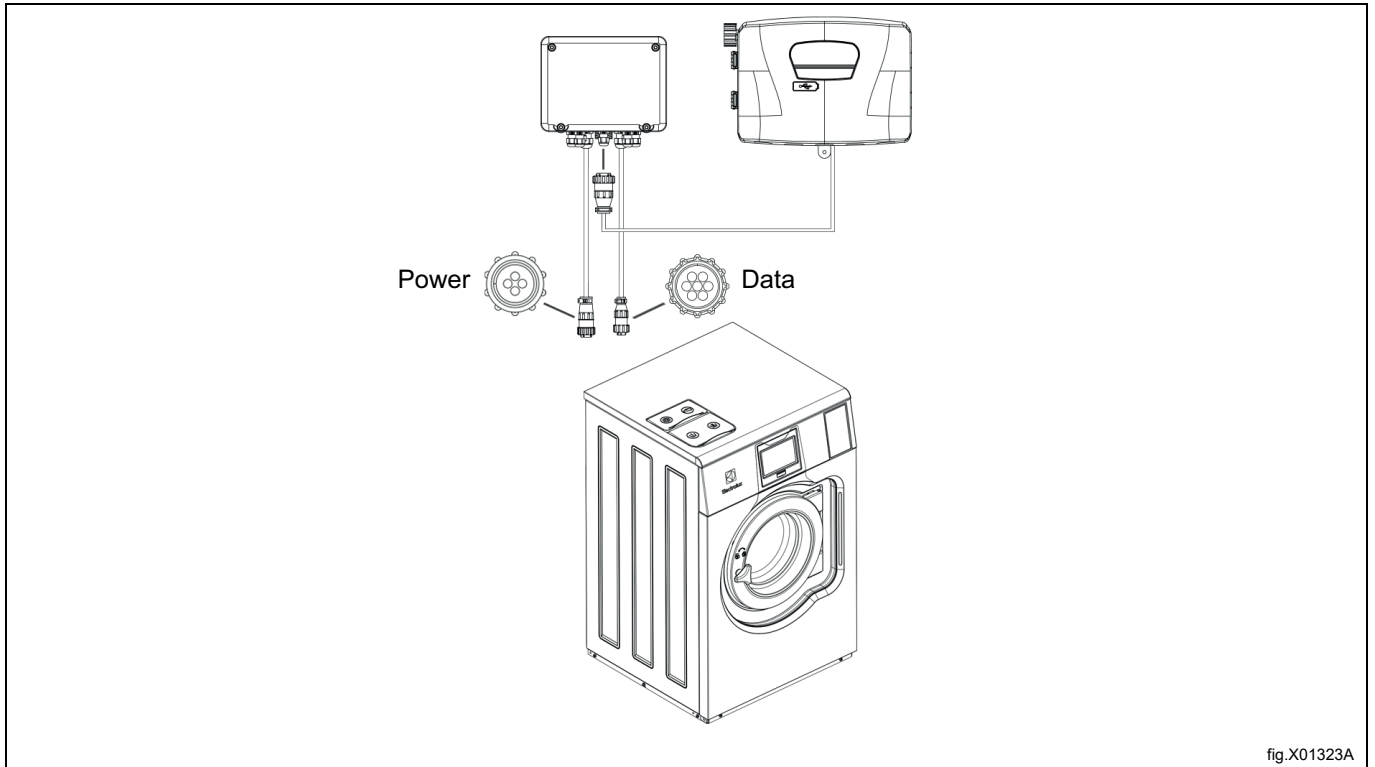


fig.X01323A

- The washer extractor is provided with AMP Style power and interface connectors so no external power source is needed for the pumps.
- The Jetsave system is for indoor use only.
- Ensure that the unit can be mounted in an accessible position above the height of the required discharge location.

Note!

Above shoulder height would require steps or platform.

- The Jetsave control unit can be installed within 3 m from the washer extractor (with possibility to extend the distance up to 15 m using optional power and the data cable) and close to product containers and at a convenient height for servicing, about 1–1.5 m.
- The input tubing from the chemical container to the Jetsave shall not be more than 2 m.
- The tubes must not be twisted and shall hang freely without any sharp bends. Longer tubes requires maintenance more often.
- The Jetsave 2-5 pumps can be daisy chained to create up to 15 pumps with 3 Jetsave units. (6-10 pumps can not be daisy chained).
- Max. 3 pumps can be ordered from the washer extractor and each pump will be run in the queue.

Jetsave PNC's	Description
988930001	Complete kit with 2 pumps, 550 ml/min
988930002	Complete kit with 3 pumps, 550 ml/min
988930003	Complete kit with 4 pumps, 550 ml/min
988930004	Complete kit with 5 pumps, 550 ml/min
988930005	Complete kit with 6 pumps, 550 ml/min
988930006	Complete kit with 8 pumps, 550 ml/min
988930007	Complete kit with 10 pumps, 550 ml/min

4 Recycling instruction for packaging

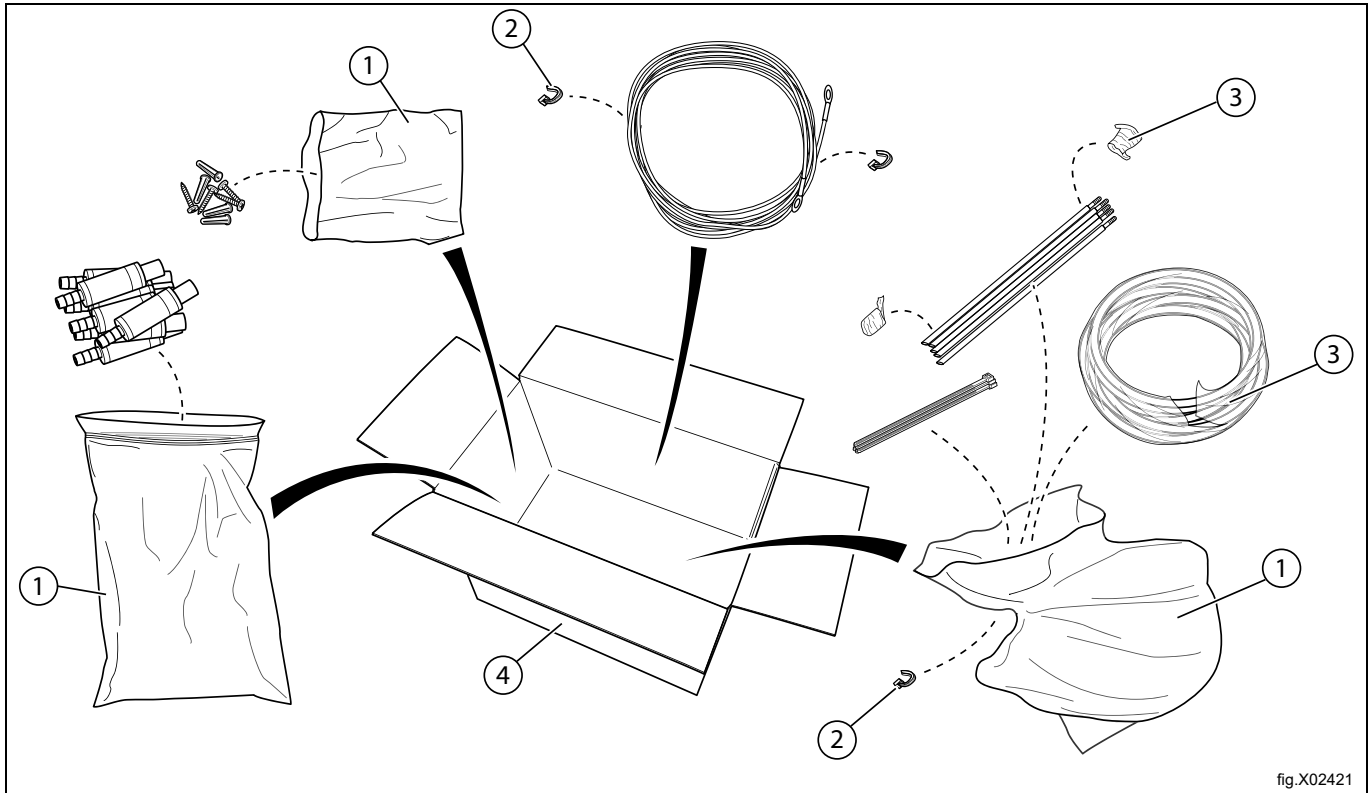


fig.X02421

Fig.	Description	Code	Type
1	Plastic bag	LDPE 4	Plastics
2	Cable Ties	Other	Plastics (Nylon)
3	Cling film	LDPE 4	Plastics
4	Cardboard packaging	PAP 20	Corrugated card board

5 Installation

5.1 Installation of the Jetsave system

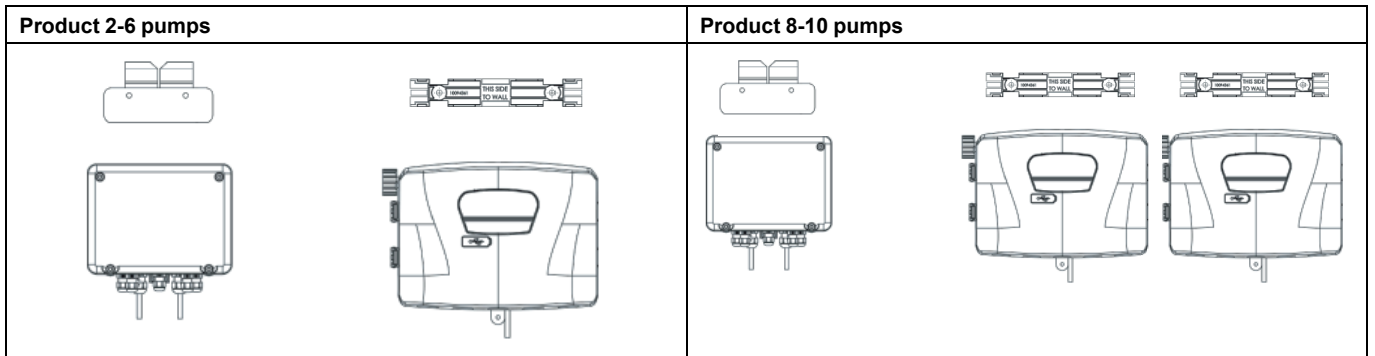
The wall where the Jetsave is to be mounted must support wall anchors and must be flat and perpendicular to the floor.

Use the wall mounting brackets as a templates and mark the location of the holes on the wall.

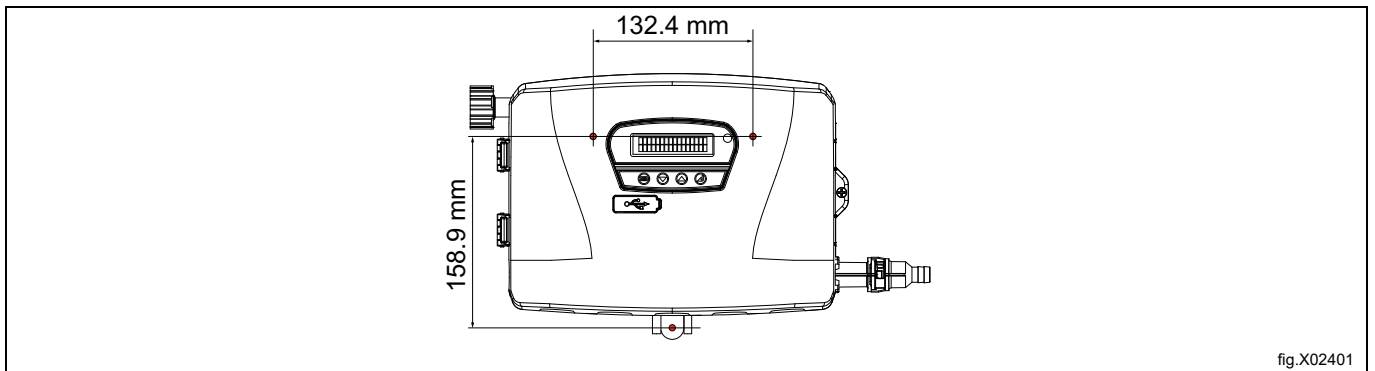
Drill the holes and put in suitable wall anchors. Fasten the wall mounting bracket with the screws. Make sure the wall mounting brackets are in level.

Mount the electrical box on the wall bracket and secure with the clips.

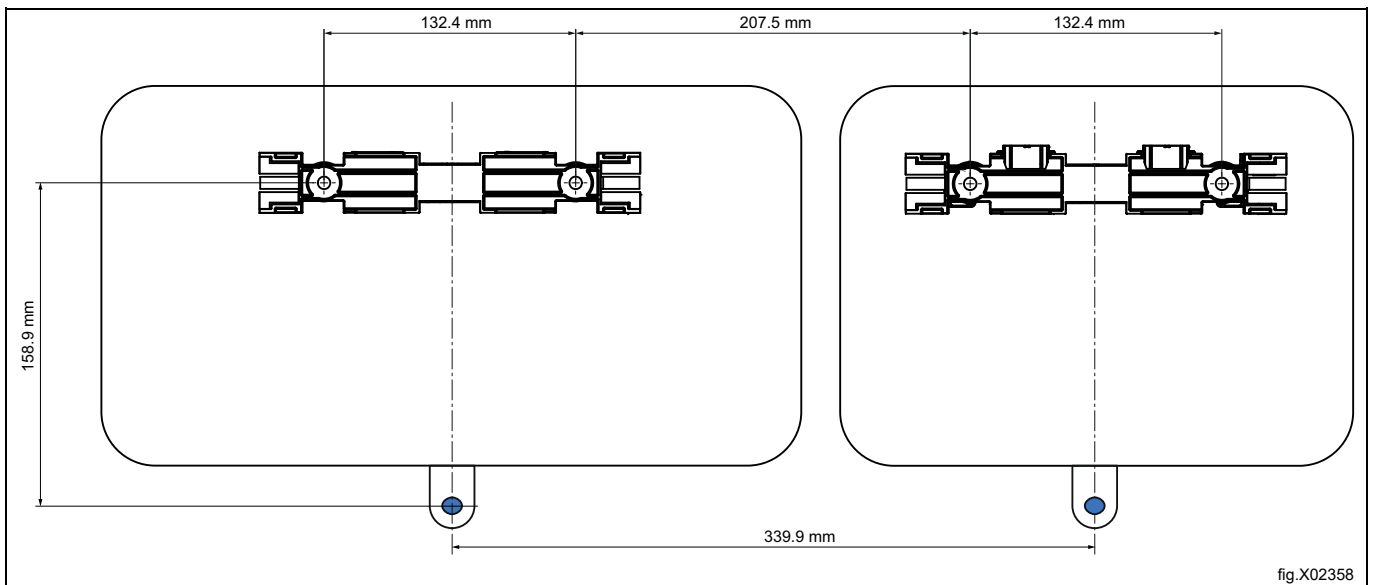
There are different sizes of the Jetsave system; unit for 2, 3, 4, 5, 6, 8 and 10 pumps.



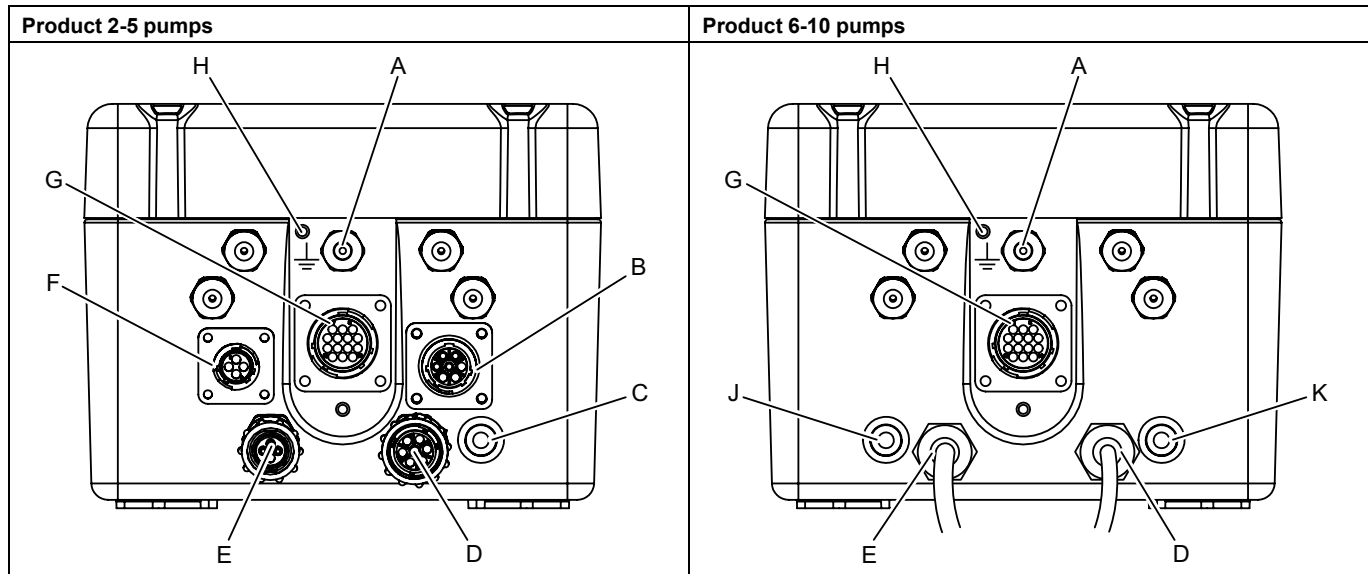
For 2-6 pumps products, drill the holes for the pump units according to the following figure.



For 8-10 pumps products, drill the holes for the pump units according to the following figure.



Connections of Jetsave control unit



A	Low level alarm port x 5 (cable glands)
B	Data out
C	Pairing button
D	Data in
E	Power in (from washer extractor 230V, 50/60Hz 0.1A Max)
F	Power out
G	Pump power connection
H	Earth connection
J	Pairing button No.1 (1st I/O board)
K	Pairing button No.2 (2nd I/O board)

Cable glands = Connection of low level sensor inputs (low level alarm ports).

The pairing button on the underside of the Jetsave control unit is used to pair the device to the washing machine.

Water connection

Connect the incoming water supply (A) to the Jetsave pumps unit using the fittings provided. This will be a 3/4" Female BSP swivel. Ensure that the incoming water supply hose is supported so that it does not create unnecessary force on the inlet.

!
Caution
!

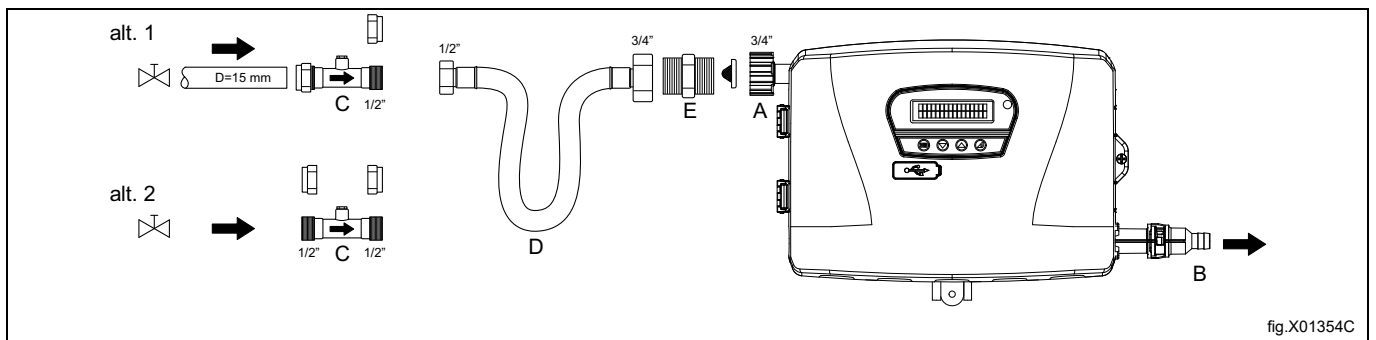
The one way valve (C) must be installed. The one way valve is offering protection equal or higher than the chemical class being used. This is to prevent back piphoning of non-potable substances into the water mains.

!
Caution
!

The water inlet pressure must be min. Min. 0.18 mPa (1.8 Bar) and max. 0.6 mPa (6 Bar).

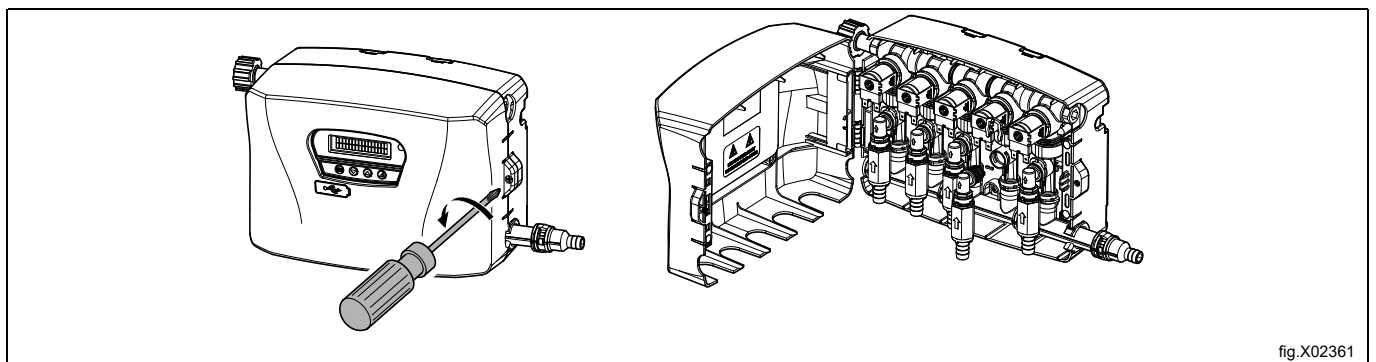
The one way valve (C) must be installed to the main water pipe or at the tap to avoid risk of breaking at inlet (A). The hose (D) and adapter (E) are not included in the kit. They can be ordered as accessories or any extra required adapters which are field supplied can be used.

Connect the water outlet (B) to the washer extractor using the hose. Secure the hose to barb with a clamp. Hose sets used to connect the Jetsave to the mains water supply must also be compliant with IEC61770.



Connection of the pickup tubes

Before connection, the Jetsave pumps unit has to be opened. Use the screw driver to open the Jetsave pumps unit.



NOTE!

The check valves (D) are supplied detached in a bag with the unit. To prevent damage, do not install hoses to the check valve while connected to the manifold.

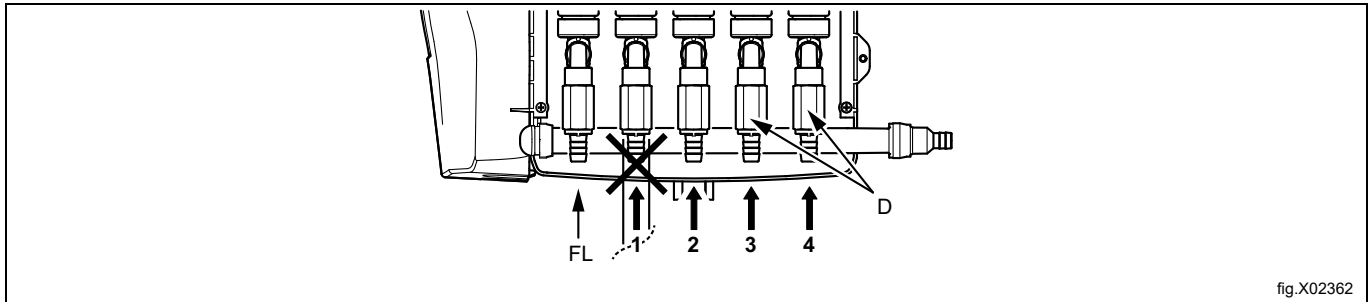


fig.X02362

**Warning**

Do not connect any chemical hose to the (FL) flush position.

Cut the hose to the length needed.

Push the hose (E) on to the check valve (D) and secure with a cable tie. Connect the elbow (F) to the manifold and secure with the white clip (G).

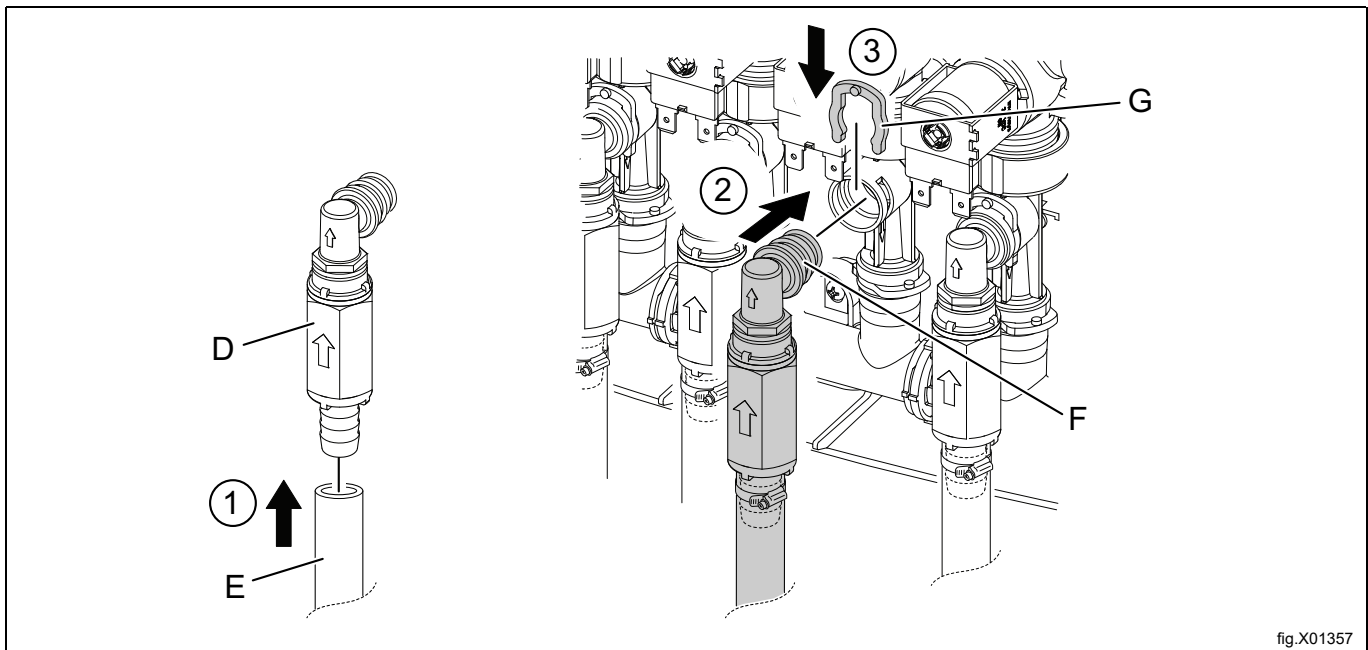


fig.X01357

Remove and drill a hole in each lid to the chemical containers to be used for the tubes to pass through. The hole shall be \varnothing 20 mm (3/4"). Use cable tie to fasten the suction pipe under the lids to prevent the suction pipes of floating or moving up from the containers.

NOTE!

Do not drill the hole when the lid is fastened to the chemical container.

Fasten each lid to the chemical containers again and insert the inlet tubes in the holes.

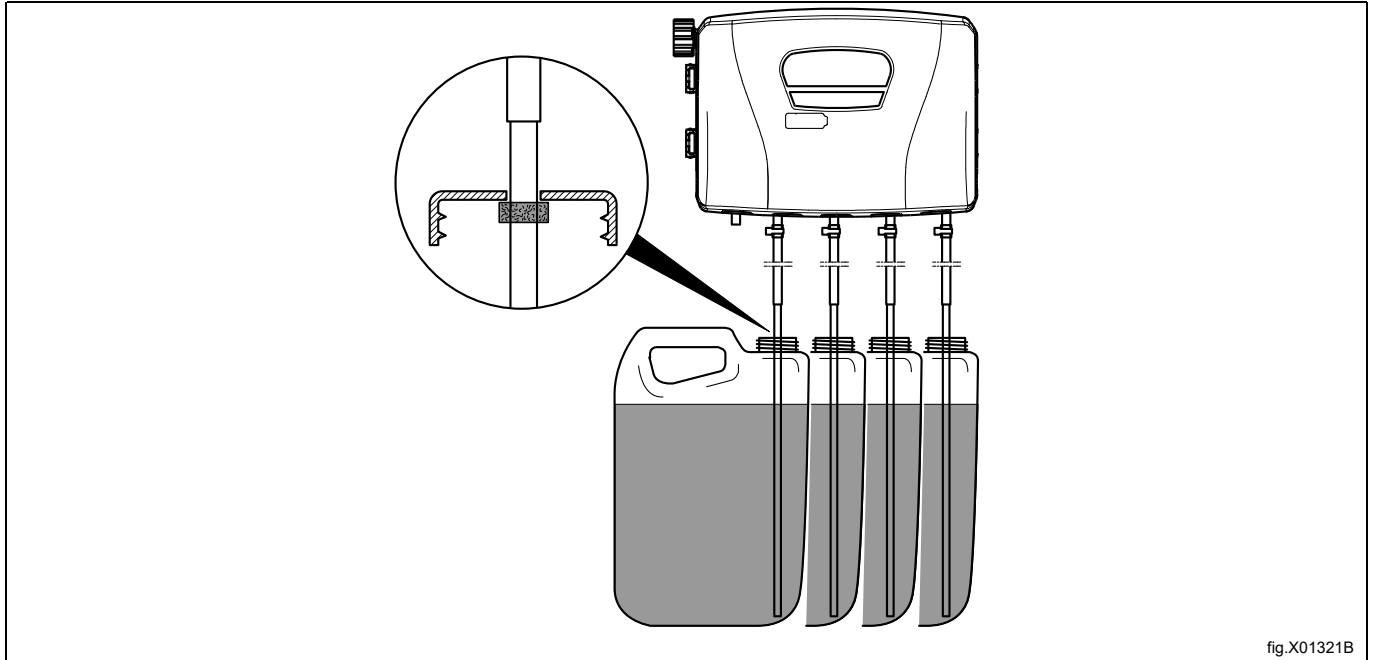
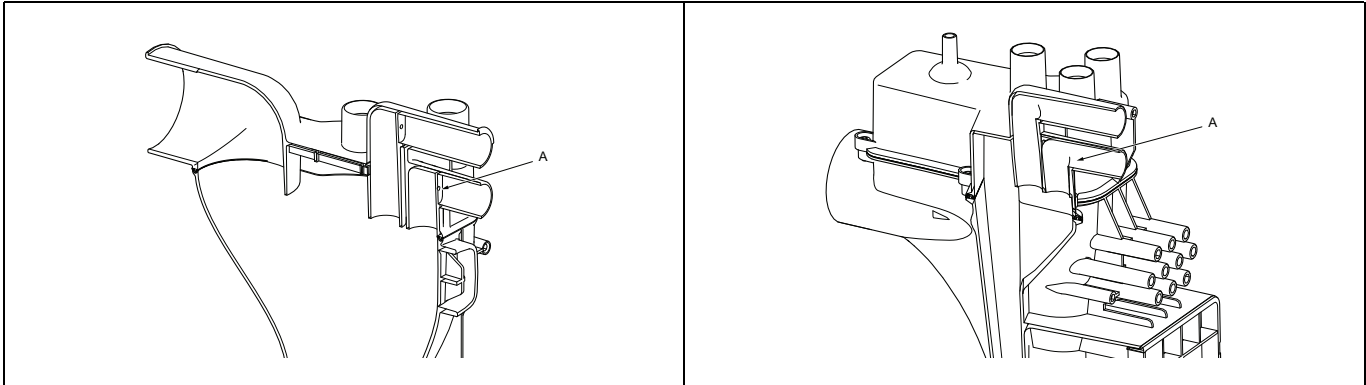


fig.X01321B

The washer extractor is prepared for connection of external dosing systems or water re-use systems etc. The connections may be closed at delivery.

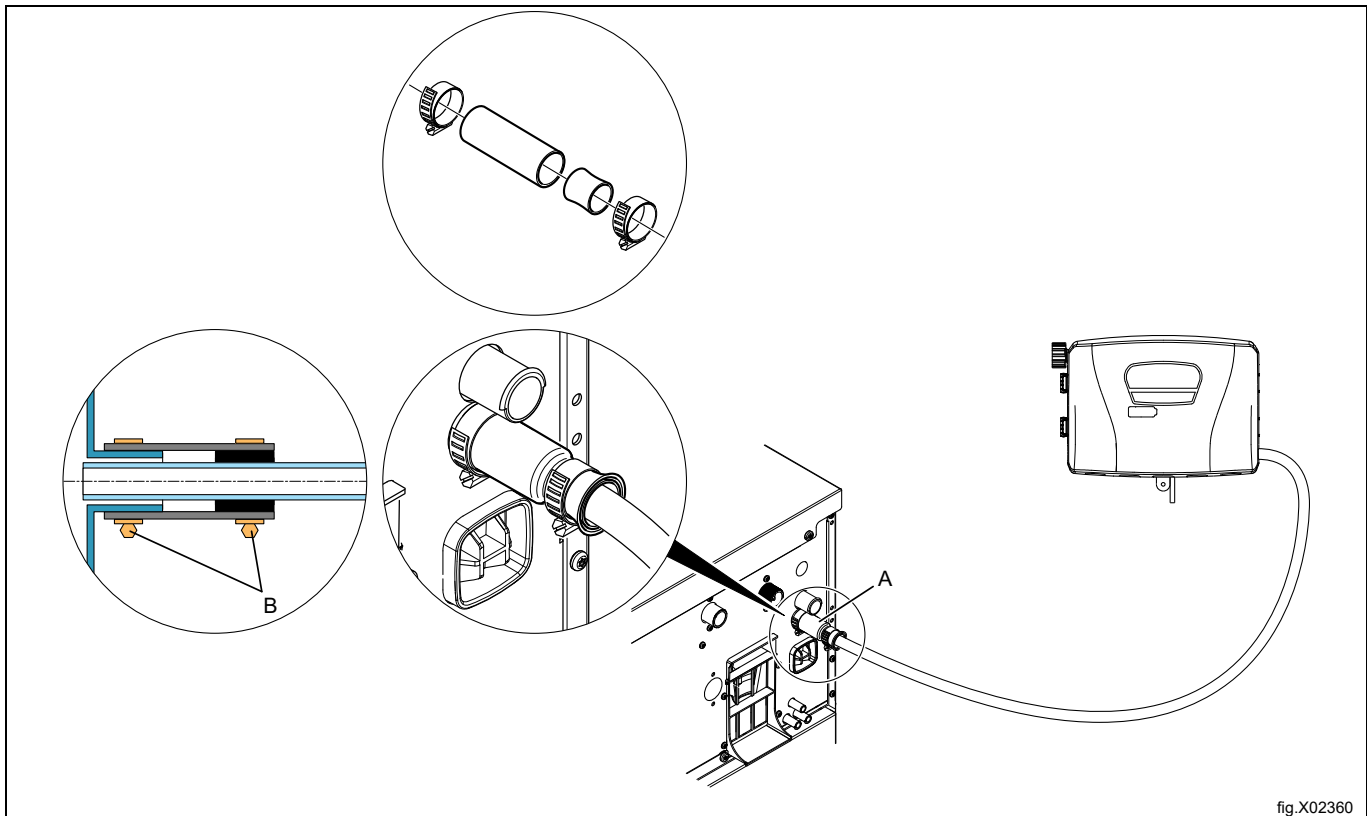
- If the connections are closed at delivery, open the connections (A) that shall be used by drilling a \varnothing 17 mm hole where the hoses shall be connected. Any extra required adapters which are field supplied can be used.



NOTE!

Make sure there is no burrs left after drilling.

- Connect the hose from the right side of the Jetsave pumps unit to the connection to be used on the washer extractor.
- Mount the rubber adapter, rubber bushing, clamps, hose from pumps unit to the connection (A) according to the following figure.
- Tighten clamps (B) with torque 3 Nm (2.2 lbf.ft).



If the hoses are made of a soft material such as silicone or similar, make sure the hose size isn't reduced, isn't sharp bended and is fitted properly to the washer extractor (A). Previous figure isn't valid for the soft hose.

NOTE!

Equipment for external dosing must only be connected to work on pump pressure and not on network pressure.

5.2 Electrical connection



The power supply to the dosing system must never be connected to the machine's incoming terminal block or to the edge connectors on the I/O-board.

Isolate the power to the washer extractor.

Disconnect the connector with termination resistor from the machine (B) and connect it to the (B) data out connection on the Jetsave control unit (1).

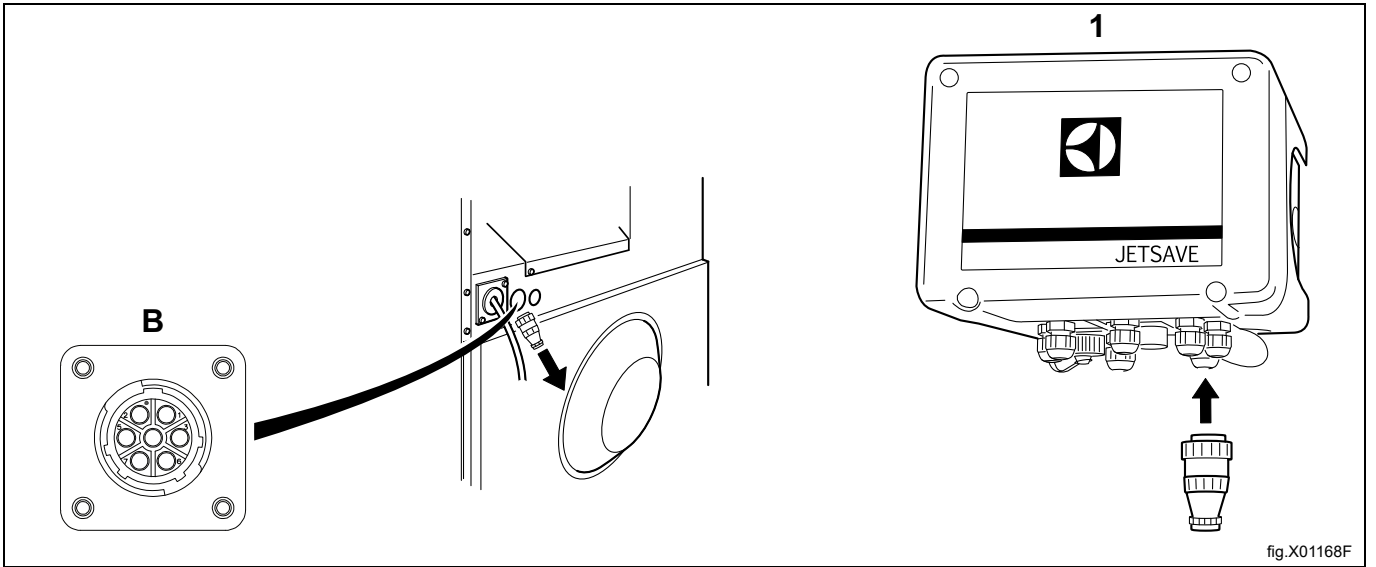


fig.X01168F

Note!

The termination resistor isn't needed for Jetsave 6-10 pumps products.

Save the termination resistor for future use. If the dosing system is uninstalled from the machine, the termination resistor must be remounted on its position on the machine.

Connect the cables from the Jetsave control unit (1) to connections A (power out) and B (data out) on the machine. Connect the cable from the Jetsave pumps unit (2) to the connection on the Jetsave control unit (1).

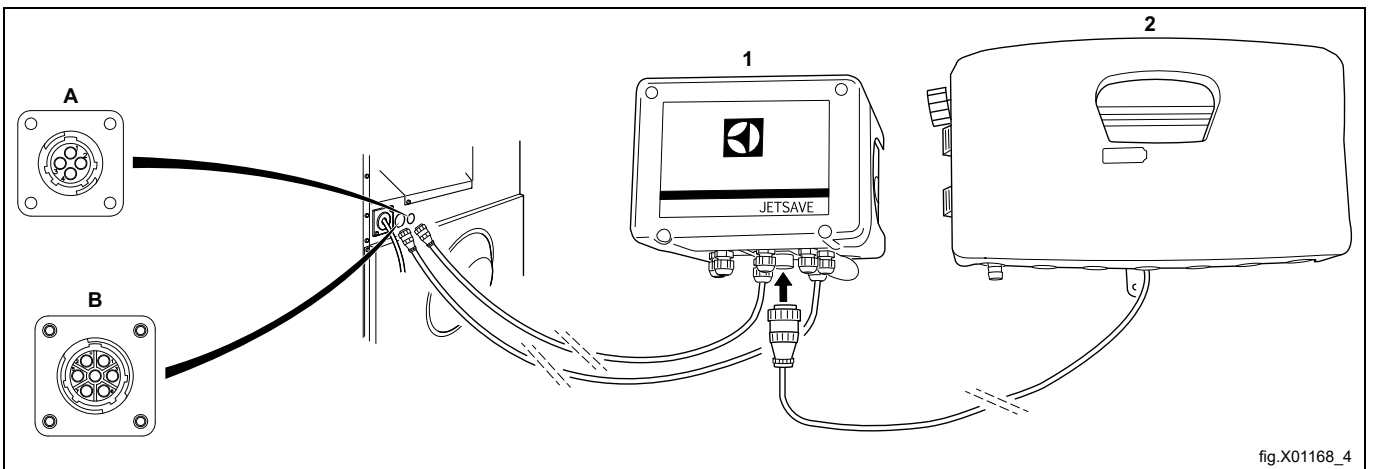


fig.X01168_4

Daisy chain of control units (only applicable for Jetsave 2-5 pumps products)

If two or three Jetsave systems are installed, the connector with termination resistor shall be connected to the last Jetsave control unit.

If the connector with termination resistor is already connected to an existing Jetsave control unit, the connector with termination resistor shall be moved from the first Jetsave control unit and connected to the last Jetsave control unit.

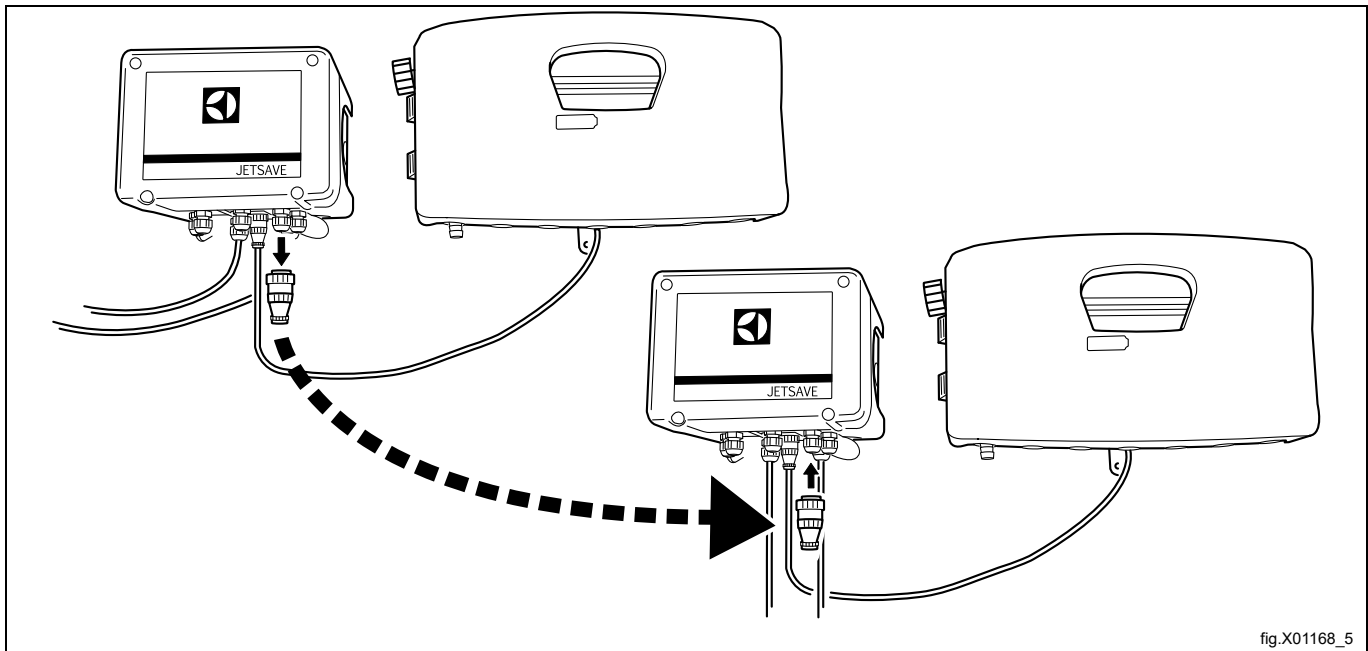


fig.X01168_5

Connect the cables from the second Jetsave control unit to the connections on the first Jetsave control unit or if three Jetsave systems are used, from the third Jetsave control unit to the second Jetsave control unit.

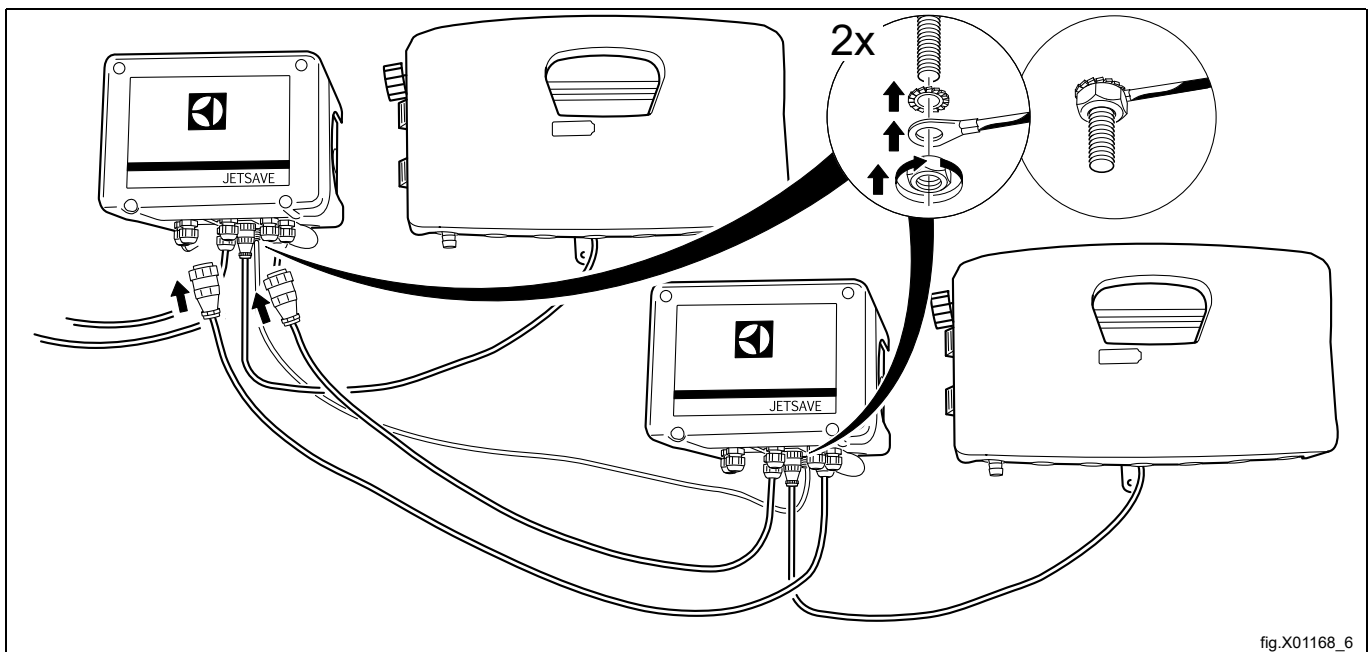




fig.X01168_6

It is possible to connect up to 3 Jetsave systems (2-5 pumps) and one ID Interface in a loop.

Note!

The joining kit is needed to combine the pump units against each another. Following the instruction in the kit.

Examples of possible combinations, 5+2, 5+4. 5+5+2, 5+5+3 etc.

	Warning	
For continued safety, earth bonding cables should be fitted.		

Chemical connections list (Default from factory, Reference from firmware 418810316 Ver. 2.3.0)

Activated: Pumps/Chemicals

Pump	Chemicals name (Output)	→	Each Chemicals name (Output) are changeable to:
Pump 1	Detergent		0: Detergent
Pump 2	Softener		1: Softener
Pump 3	Bleach		2: Bleach
Pump 4	Floor care		3: Floor care
Pump 5	Desinfection		4: Desinfection
Pump 6	W01 - sensitive detergent		5: W1 - sensitive detergent
Pump 7	W02 - delicate detergent		6: W2 - delicate detergent
Pump 8	W03 - sensitive conditioner		7: W3 - sensitive conditioner
Pump 9	Detergent 2		8: Detergent 2
Pump 10	Bleach 2		9: Bleach 2
Pump 11	Floor care 2		10: Floor care 2
Pump 12	Floor care 3		11: Floor care 3
Pump 13	Preservation		12: Preservation
Pump 14	Impregnation		13: Impregnation
Pump 15	Descaling		14: Descaling
Pump 16	Sour		15: Special chemical
			16: A02 - colour transfer reducer
			17: A03 -leather care
			18: Sour
			19: Detergent 3
			20: Detergent 4
			21: Detergent 5
			22: Softener 2
			23: Softener 3
			24: Softener 4
			25: Softener 5
			26: Booster 1
			27: Booster 2
			28: Floor care 4
			29: Special chemical 2
			30: Special chemical 3
			31: None

Note!

The washing programs will order or require each chemical from above output, not from pump number. So chemicals requirement in the wash programs must be matched with Chemicals name (Output). Otherwise, the machine will wash without any chemical.

5.3 Selection of system/pumps

When the Jetsave system has been installed the washer extractor must know which type of system/pumps that are used in order to function in the correct way.

Proceed as follow:

- Enter the password set by the manager to access the Main menu.
- Activate the Pumps menu.
- Activate the Pumps menu.

A list with different types of systems/pumps will now be visible on the screen.

- Select **1: Venturi** for the Jetsave system.

5.4 Pairing the pumps / Addressing the I/O board

- Enter the Advance manager password or Advance service password to access the Main menu.
- Activate the Settings menu.
- Activate the I/O board addressing menu.

Available I/O boards and addresses will now be visible on the screen as a drop down list. The different I/O boards and addresses are marked with either a green or a grey light.

- Green light = in use.
- Grey light = not in use and available for addressing.

The Jetsave System must be addressed to the 2nd row of I/O Type 22.

- Select the **second row for I/O Type 22 (A)**.
- Press “Add” to start the pairing function.

NOTE!

It is very important to activate the correct address — second row for I/O Type 22. If not, the pumps will not work.

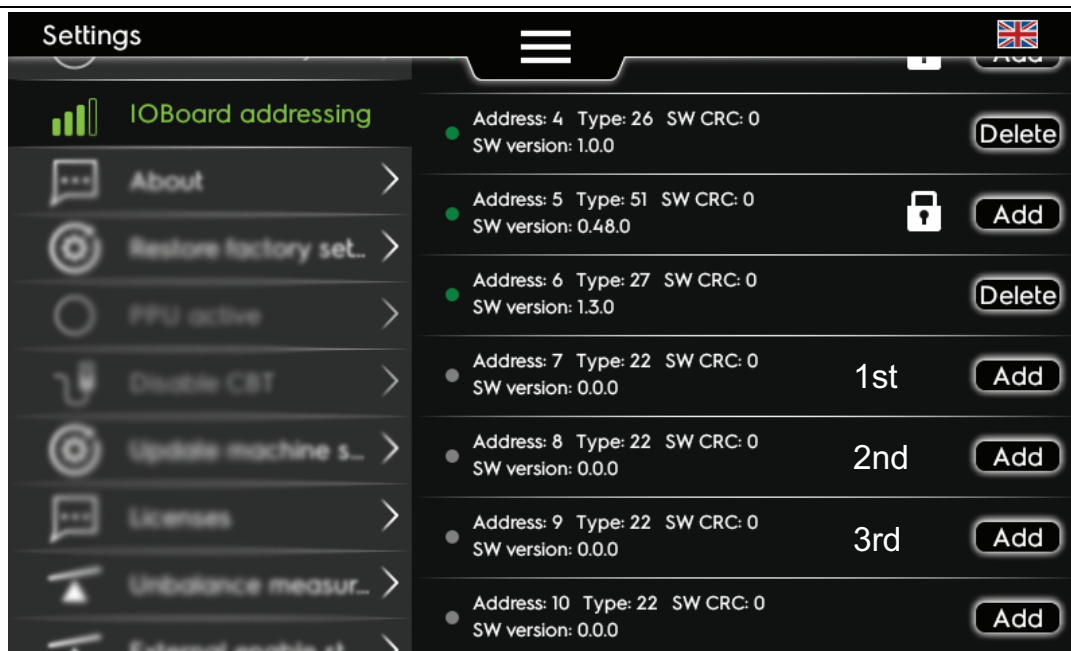


fig.X02320

When pressing Add, the following message will be displayed indicating that it is OK to pair with the Jetsave system.



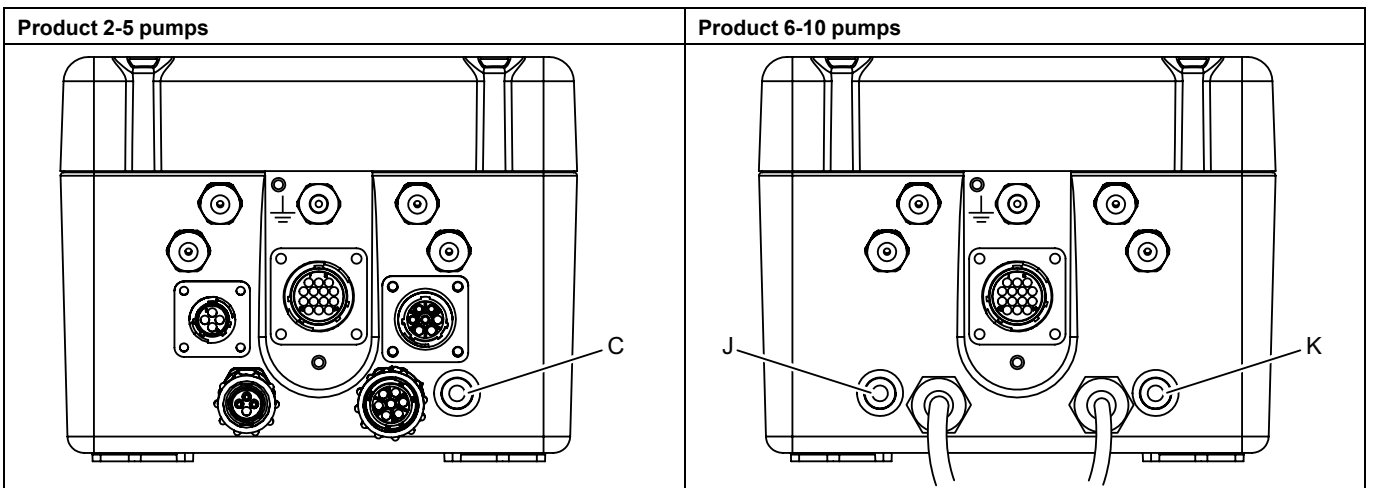
fig.X01677

For 2-5 pumps products:

- Press the pairing button (C) on the Jetsave control unit.

For 6-10 pumps products:

- Pairing button No.1 (J) will be for 1st I/O board and Pairing button No.2 (K) will be for 2nd I/O board.



A green light on the second row for I/O Type 22 indicates that the pairing has been successfully done.

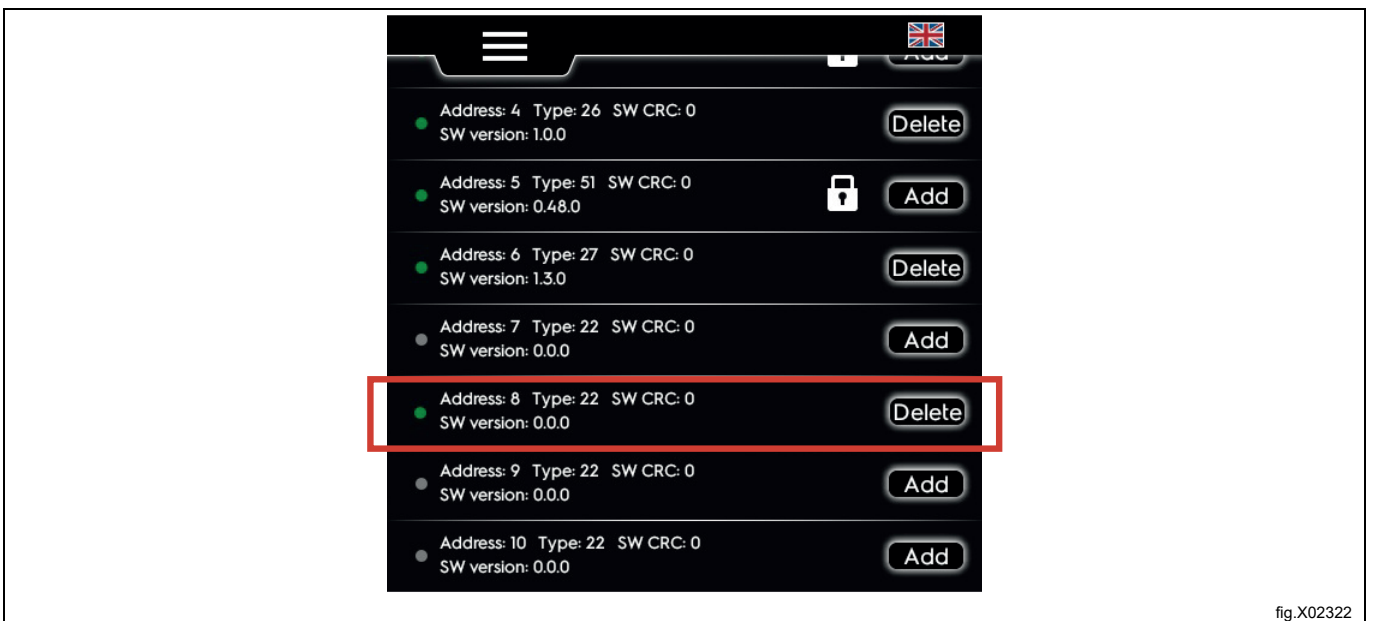


fig.X02322

If more Jetsave systems shall be used the next one shall be paired to the third row etc.
Up to three Jetsave systems can be used and paired.

5.5 Priming the pumps

- Enter the Advance manager password or Advance service password to access the Main menu.
- Activate the Pumps menu.
- Activate the Priming menu.
- Activate Pump 1 from the list to start priming the first pump.
- Press play to start priming and press stop when ready. (You can also use the pairing button (C) to start and stop, or button (J) and (K) for 6-10 pumps products).

The hose shall be filled all they way to the outlet of the hose.

Do the same for all the pumps.

5.6 Calibrating the pumps

- Enter the Advance manager password or Advance service password to access the Main menu.
- Activate the Pumps menu.
- Activate the Calibration menu.
- Activate P1 from the list to start calibrating the first pump.

The different steps to be made when calibrating will now be visible on the screen.

1. Fill a container with ml markings (minimum volume 350 ml) with the product to be calibrated and place the tube from the Jetsave system to be calibrated into the container.
2. Press play to start calibrating.
3. Press stop when 250 ml has been removed from the container.
4. Save the result for the pump.

The first pump has now been calibrated.

Do the same for all the pumps.

Note!

You can also use the pairing button (C) to start and stop the calibration, or button (J) and (K) for 6-10 pumps products.

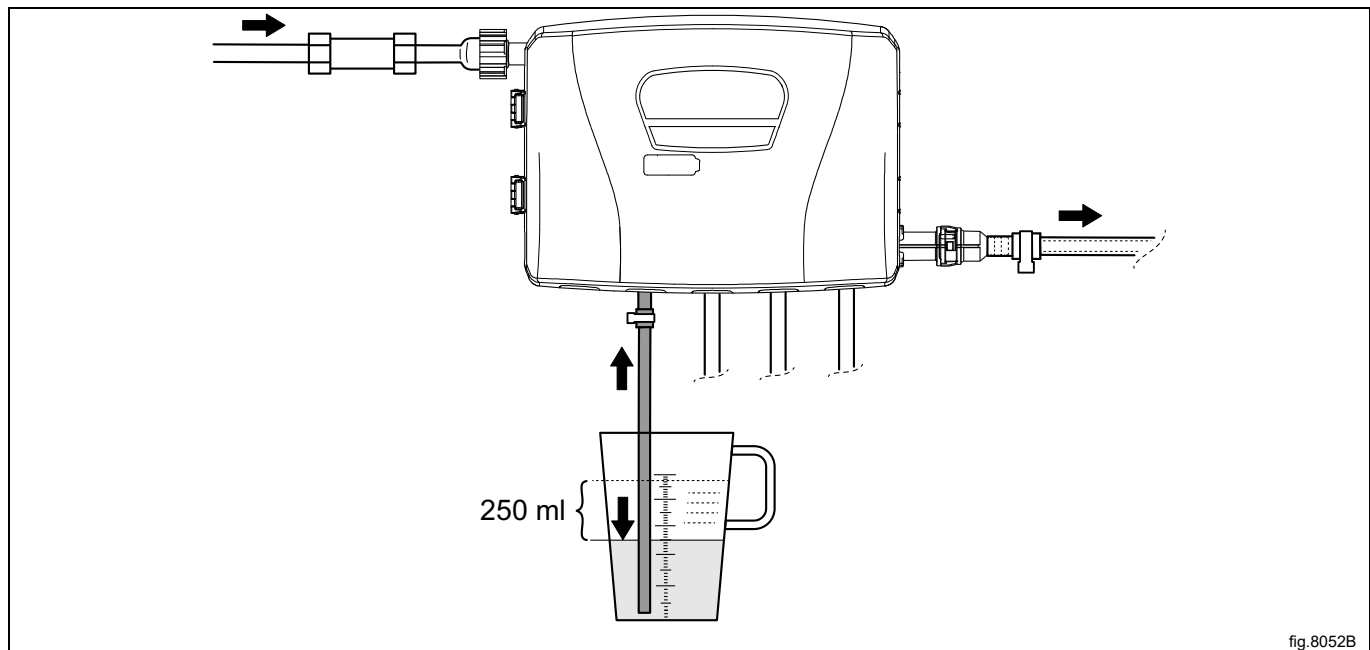


fig.8052B

5.7 Installation of low level probe (option)

Put the level probes in their respective product container.

The existing hoses connected to the pump-stand shall be replaced with the new hoses. Connect the hoses to the left side of each pump on the pump-stand as before.

The cable (A) shall be connected to the Jetsave control unit and the hose (B) shall be connected to the pump-stand. The level probes are fitted with a magnetic float switch (C). This switch should arrive in the correct position for your application.

Should the switch work in reverse, remove the cross head screw securing the float magnet, remove the float magnet and refit it in the opposite direction.

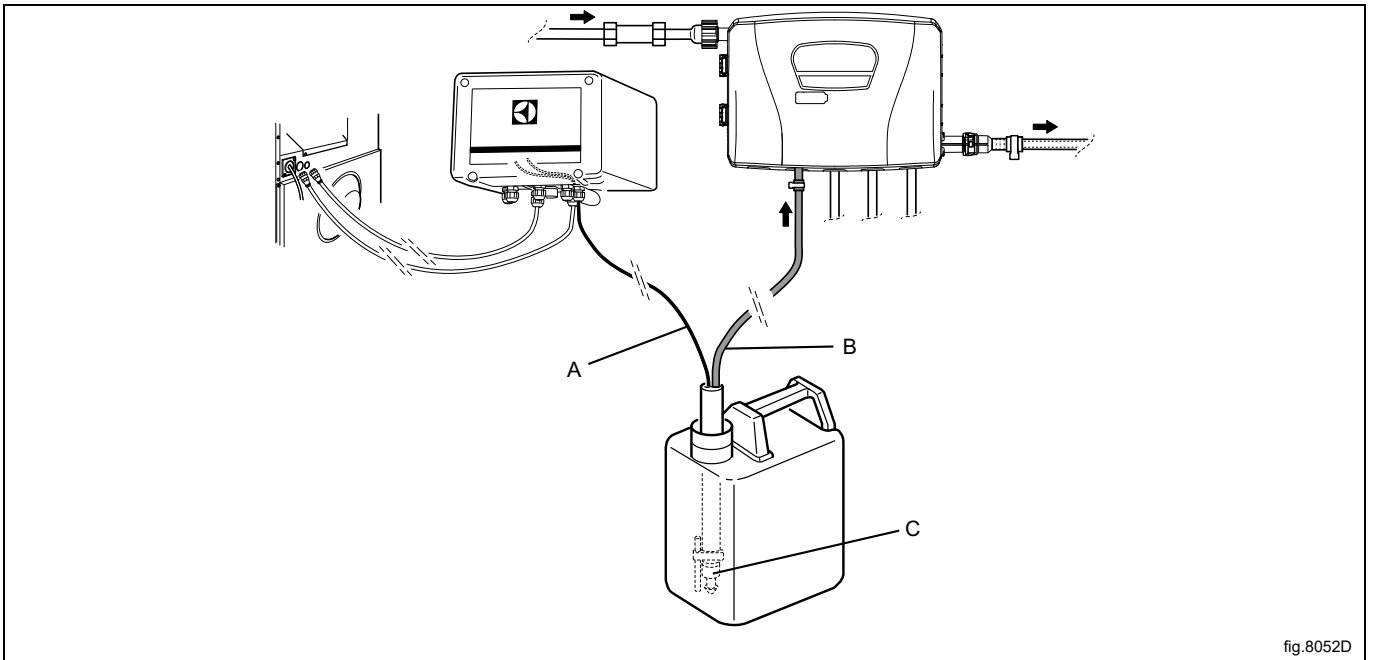


fig.8052D

5.8 Connection with low level sensors/probes

Open the Jetsave control unit before connection.

If low level sensors are installed, an error message will be displayed when any of the chemical tanks are low. The program will however continue. As the A122 board is with 5 outputs for pumps but only 3 inputs for level sensing, some low-level sensors must be connected in parallel. In such an installation the control system will be alarming low level when any of merged sensors has triggered. The figure below is showing such a configuration.

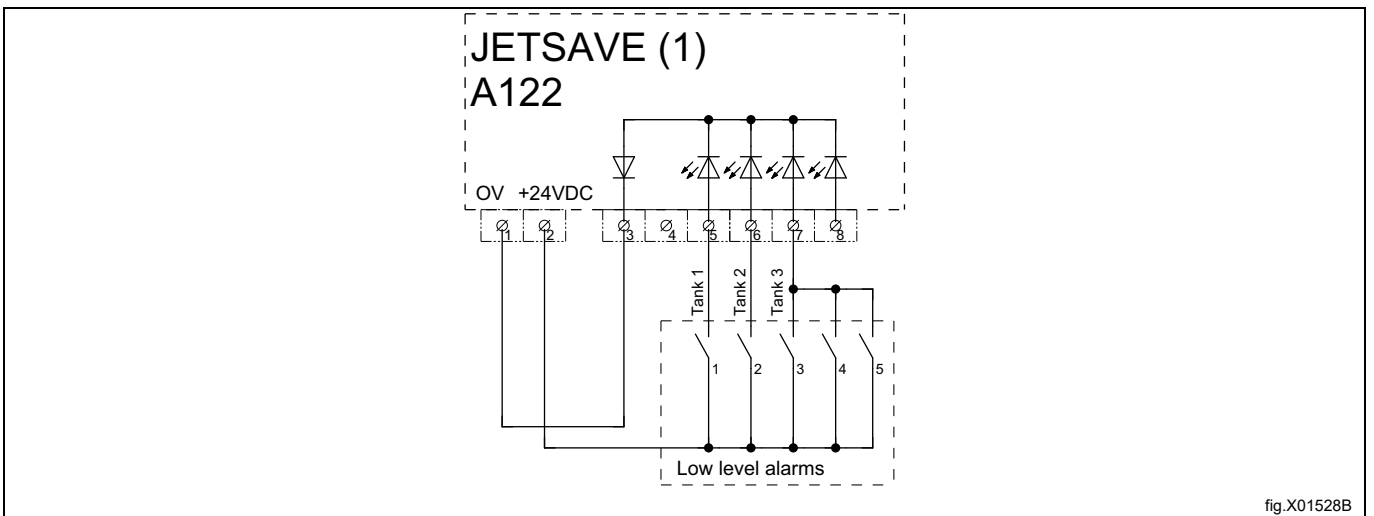


fig.X01528B

It is possible to display all the alarms separately by adding an ID interface.

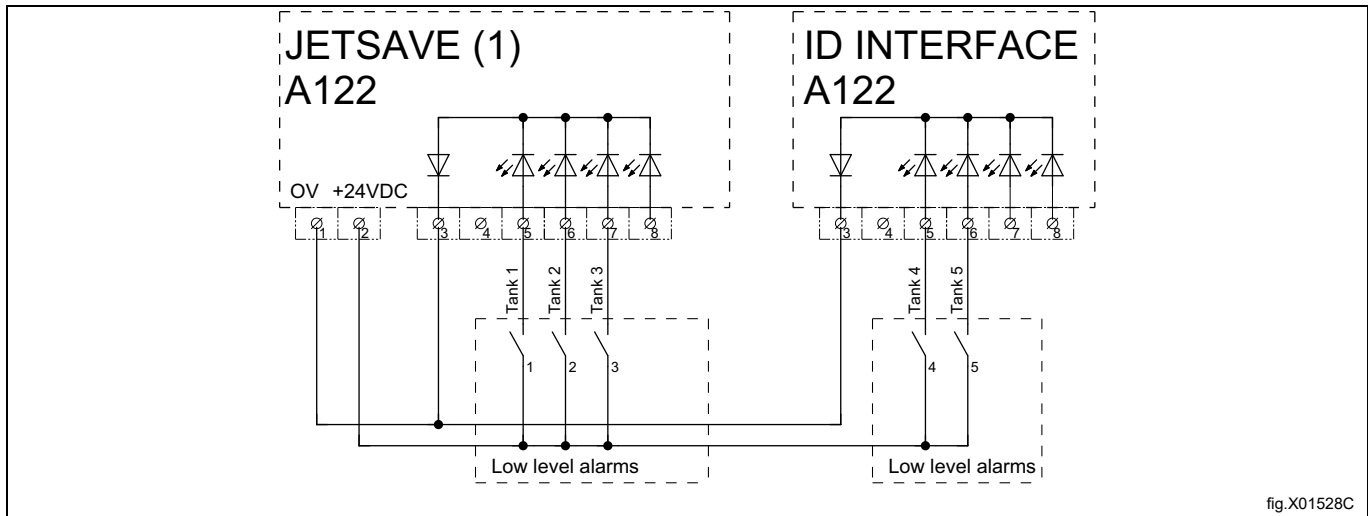


fig.X01528C

The system can be extended for dosing up to 15 chemicals by using three JETSAVE units:

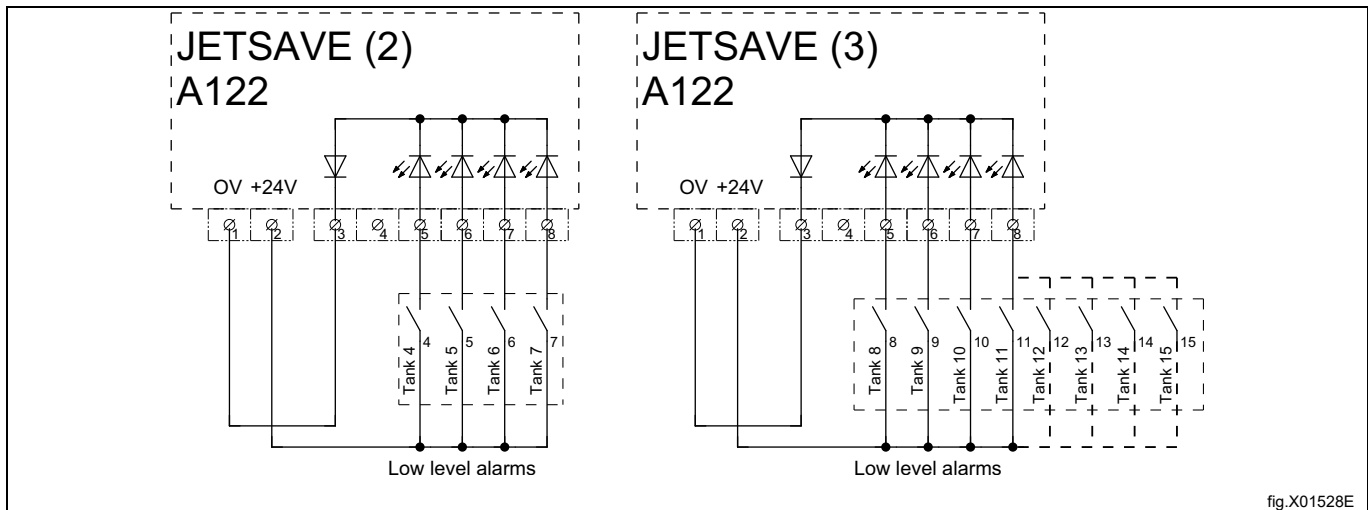


fig.X01528E

Available inputs on A122 for low level sensing:

- The first JETSAVE in the loop: 5-7 (input 8 dedicated for flow switch)
- Remaining JETSAVE units: 5-8
- ID Interface: 5-8

6 Technical specification

Number of pumps which may operate at the same time:

- 3 (pump will be programmed to operate in queue)
- Maximum pump dispensed = 6000 ml
- Maximum product delay time = 999 sec.
- Maximum flush time = 120 sec.
- Maximum pump prime time = 30 sec.
- Maximum operating temperature = 49°C

Power supply
From the washer extractor: 230V, 50/60Hz /0.1A (Max)
From the Jetsave system: 230V, 50/60Hz /0.1A (Max)

Water supply
Min. 0.18 mPa (1.8 Bar)
Max. 0.6 mPa (6 Bar)

This unit complies with the following directives and standards:

- 2014/35/EU Low Voltage Directive (LVD)
- 2014/30/EU Electromagnetic Compatibility (EMC)
- EN 61000-6-2:, EN 61000-6-4:2001, EN 61000-3-2:2000, EN 61000-3-3:1995/A1:2001

7 Trouble shooting and service



Trouble shooting may only be carried out by qualified service personnel.
Isolate the power and the water before carrying out any maintenance or cleaning on the units.
Do not adjust/rework items not listed in this trouble shooting without guidance from Electrolux Professional service personnel.
If the supply cord is damaged it must be replaced, NOT repaired.

8 Disposal information

8.1 Disposal of appliance at end of life

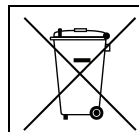
Before disposing of the machine, make sure to carefully check its physical condition, and in particular any parts of the structure that can give or break during scrapping.

The machine's parts must be disposed of in a differentiated way, according to their different characteristics (e.g. metals, oils, greases, plastic, rubber, etc.).

Different regulations are in force in the various countries, therefore comply with the provisions of the laws and competent bodies in the country where scrapping takes place.

In general, the appliance must be taken to a specialised collection/scrapping centre.

Dismantle the appliance, grouping the components according to their chemical characteristics, remembering that the compressor contains lubricant oil and refrigerant fluid which can be recycled, and that the refrigerator and heat pump components are special waste assimilable with urban waste.



The symbol on the product indicates that this product should not be treated as domestic waste, but must be correctly disposed of in order to prevent any negative consequences for the environment and human health. For further information on the recycling of this product, contact the local dealer or agent, the Customer Care service or the local body responsible for waste disposal.



Note!

When scrapping the machine, any marking, this manual and other documents concerning the appliance must be destroyed.

8.2 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 following examples.

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



Electrolux Professional AB
341 80 Ljungby, Sweden
www.electroluxprofessional.com