



quick start guide

Low Level Alarm

Safety Precautions



WARNING! Please read these warnings carefully and follow all applicable local codes and regulations.

**THANK YOU FOR YOUR INTEREST IN OUR PRODUCTS.
TO AVOID SERIOUS PERSONAL INJURY AND PROPERTY DAMAGE:**

WEAR Protective clothing and eye wear when handling or dispensing chemicals or other materials or when working in the vicinity of all chemicals, filling or emptying equipment.

ALWAYS read and follow all safety instructions in safety data sheets (SDS) for all chemicals.

observe safety and handling instructions of the chemical manufacturer.

dilute and dispense chemicals in accordance with manufacturer's instructions.

direct discharge away from you or other persons and into approved containers.

regularly inspect equipment and keep equipment clean and properly maintained.

install using a qualified technician only, in accordance with all applicable electrical and plumbing codes.

disconnect all power to dispenser during installation, service, and/or any time dispenser cabinet is opened.

NEVER mix incompatible chemicals that pose hazards.

- The appliance is not designed to be used at an altitude higher than 2000m.
- Means for disconnection of the appliance from the supply mains must be incorporated within the fixed wiring in accordance with the wiring rules
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard
- This appliance can be used by children (aged from 8 years) 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 carried out by children without supervision.

• This unit is not be used with chemicals outside the temperature of 5-35°C
NOTE: Cables connected to 230v/110v External Alarm relay outputs must measure more than 0.75mm²

NOTE: The appliance should be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA



Electrical

- All electrical work must be carried out in accordance with local and national regulations, and by a qualified electrician.
- The unit **MUST** be disconnected from its power source during cleaning, servicing or when replacing parts.
- The Alarm should only be operated at or within the voltage specified in this Installation and Manual.
- The installer and user are responsible for ensuring the installation and operation of this Alarm are in accordance with this Installation and User Manual and local and national regulations.

NOTE: Unit LLA2000L8D is Class III and must only be supplied by SELV (24VDC).

NOTE: LLA unit satisfies the Electromagnetic compatibility (EMC) requirement for residential use.

overview and specification

Specifications

Model	Power requirement	Current (Amps)	Appliance class	Operating temperature (°C/°F)	Package weight (g/lbs)	
					Gross	Net
LLA2000L8S	110 V/AC - 230 V/AC	0.02	Class II	5-35 / 41-95	385 / 0.85	440 / 0.97
LLA2000L8D	24 V/DC	0.03	Class III	5-35 / 41-95	450 / 0.99	540 / 1.19
LLA2000L8SU	110 V/AC - 230 V/AC	0.03	Class II	5-35 / 41-95	525 / 1.16	615 / 1.36

Package dimensions (L x W x H) (mm) : 205 x 155 x 50

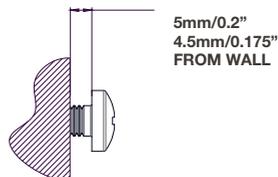
Package dimensions (L x W x H) (in.) : 8.07 x 6.10 x 1.97

installation

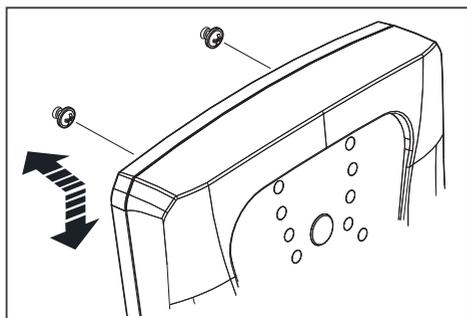
Mounting the Low Level Alarm to the Wall

Using the wall fixing template provided (at the back of the manual) mark the screw positions on the wall. There is a three point connection to the wall, two top screws to hang the Alarm from and one lower screw fixing the Alarm against the wall.

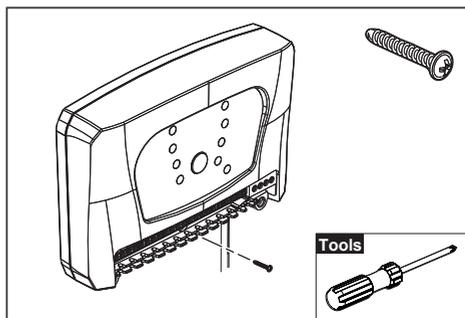
1. Mark the drilling position, using the template provided (drilling template on the back page of the instruction manual)
2. Drill the wall
3. Insert wall plugs
4. Install screws



Locate the alarm onto the two hanging screws



Install fixing screw into lower mounting hole



Once the unit has been successfully installed, electrical connections to the depletions wands can be made. Details of electrical connections can be found in the 'electrical connections' section.

Electrical connections

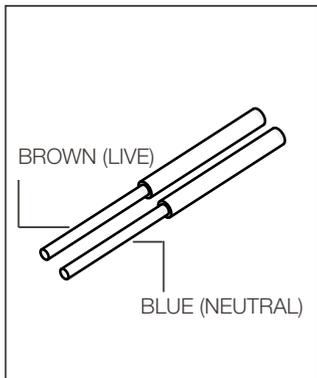


- All mains electrical work must be carried out in accordance with local and national regulations, and by a qualified electrician.
- The unit **MUST** be disconnected from its power source during cleaning, servicing or when replacing parts.
- The Alarm should only be operated at or within the voltage specified in this Installation manual.
- The installer and user are responsible for ensuring the installation and operation of this Alarm are in accordance with this Installation and User Manual and local and national regulations.
- Connect black power cable to power supply, ensuring correct polarity is followed; Brown is live and Blue is neutral.

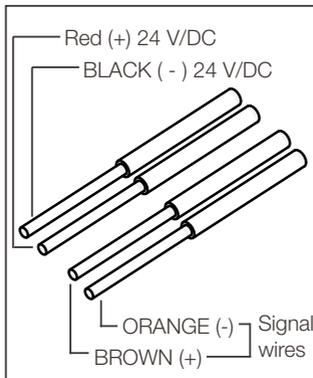
Note: It is a legal requirement to allow disconnection of the appliance from the supply after installation. The disconnection may be achieved by having the plug accessible or by incorporating a switch in the fixed wiring in accordance with the wiring rules.

Connecting the mains power supply

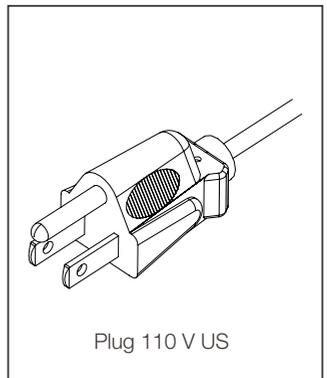
LLA2000L8S (230 V AC)



LLA2000L8D (24 V DC)

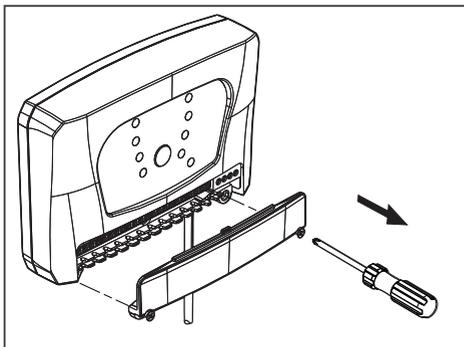


LLA2000L8U (110 V AC)

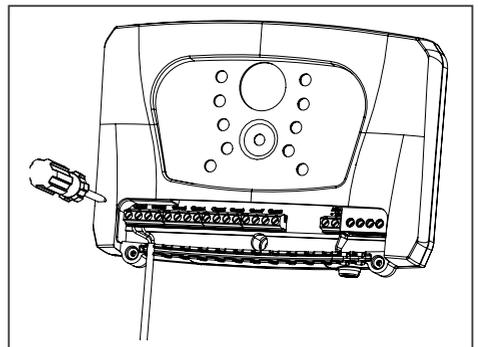


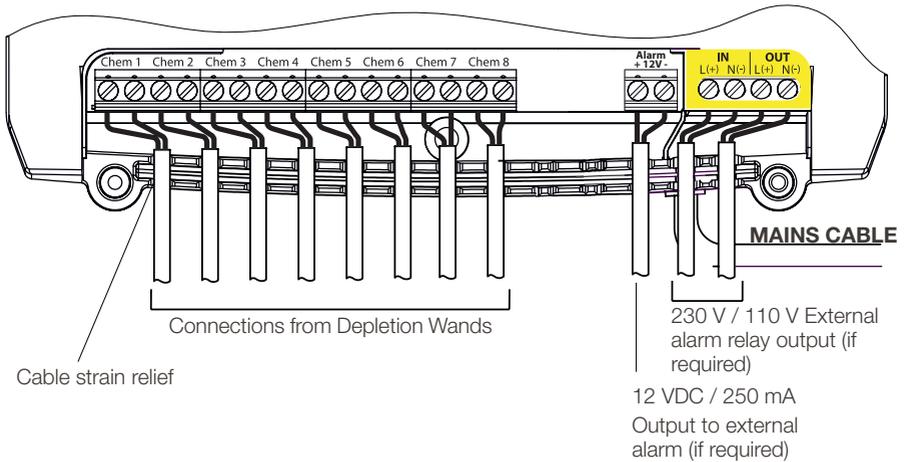
Connecting the Depletion Wands

To connect Depletion wands to the unit, remove the access panel, as shown below.



Connect the Depletion wands to the terminals, as shown below.

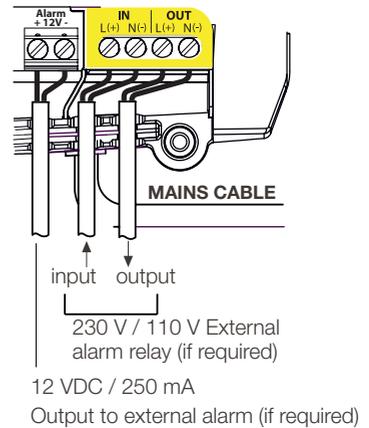




Connecting external alarms (LLA2000L8S & LLA2000L8SU versions only)

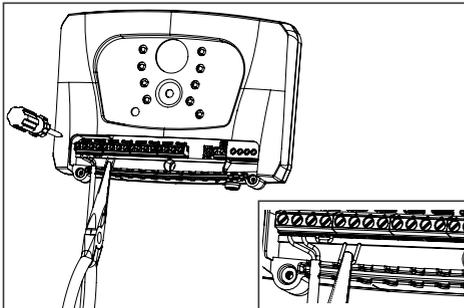
The Alarm allows an additional alarm / sounder to be connected and triggered, using the following power options:

- 12V DC (250mA max) direct supply from Low Level Alarm unit
- Relay outputs, allowing 110 – 230Vac (1A max) to be routed through the terminals indicated in the diagram.

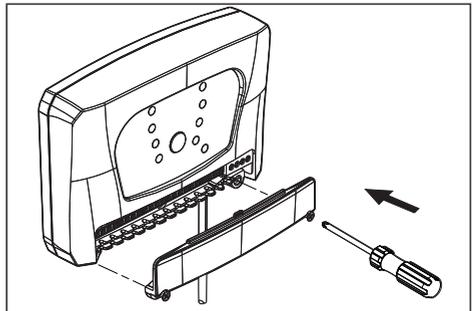


On units with normally closed depletion wands, insert the jumper links into all unused terminals, as shown below.

Warning: Never insert jumper links into 12 V terminals.



Once electrical connections have been made, the access panel should be replaced, as show below.

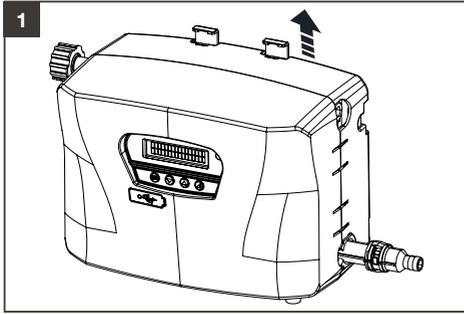


Warning: Ensure cables are secured correctly into cable strain relief channels. Incorrect connection may allow cables to be pulled loose.

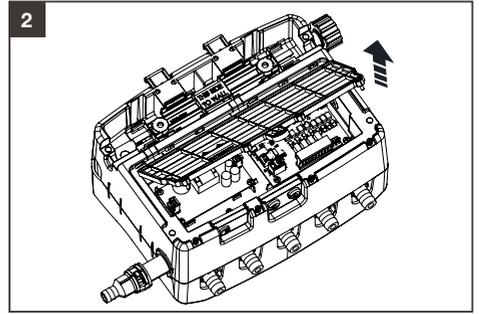
Connecting the dispenser powered Low Level Alarm (LLA2000L8D)

Warning: Isolate EvoClean power & signals before installation.

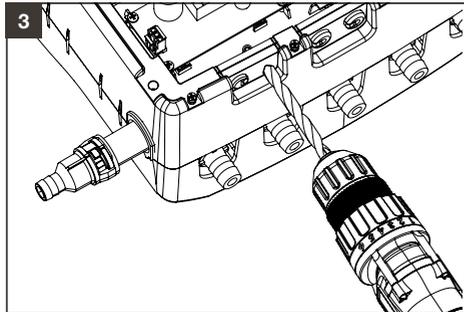
Remove clips.



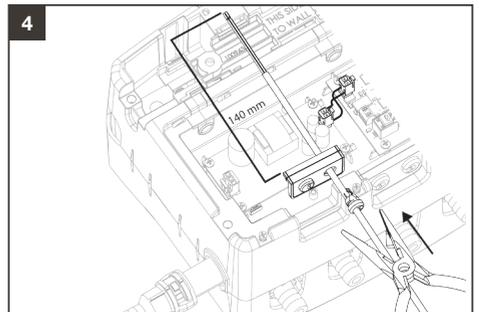
Remove cover.



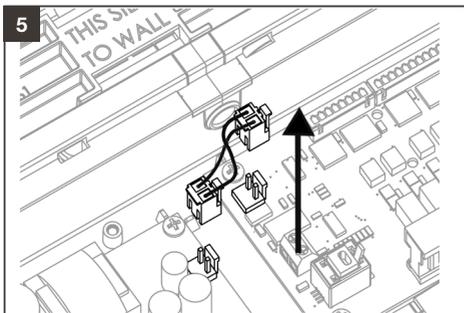
Drill hole (10mm / 13/32" drill bit)



Insert cable through plate, using grommet/cable gland to fit in place. (Note: Install to the dimension indicated).

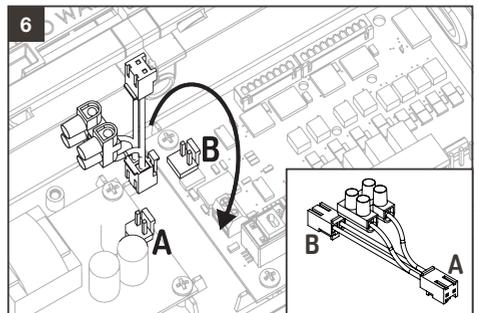


Remove existing power link wire.



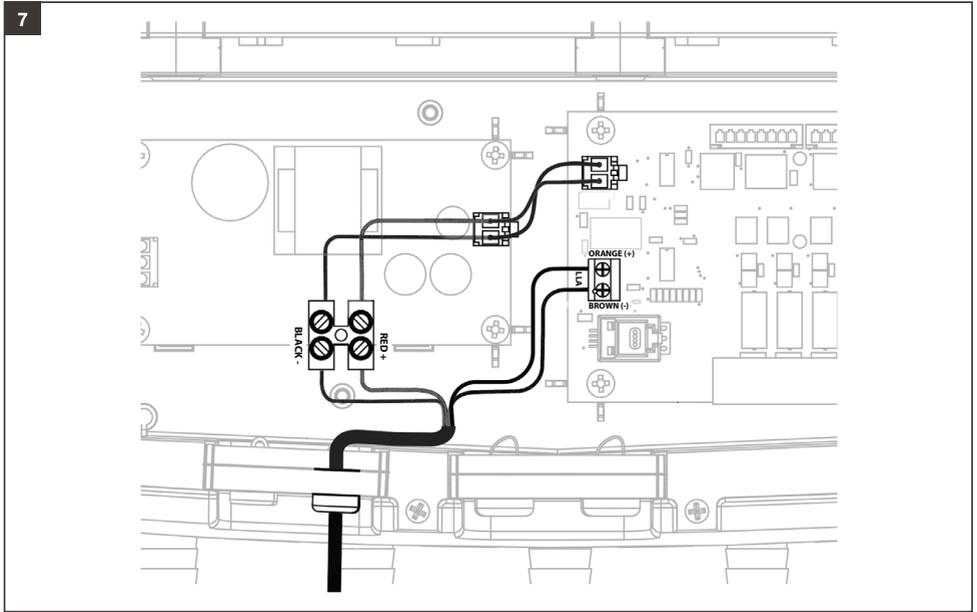
Connect link wire to power terminal A, with the screw terminal block oriented on the same side as the connector, as shown.

Connect the other end of the link wire to power terminal B.



Connect red & black wires from the Low Level Alarm to the corresponding red & black wires on the screw terminal block. Connect brown & orange wires to the positive & negative terminals of the EvoClean alarm input.

Once installed, cable tie into position.



Once wiring is complete, replace rear cover and screw onto the EvoClean.

set up & operation

Switching the alarm from normally open to normally closed (LLA2000L8S & LLA2000L8SU versions only)

The Alarm is factory set to work with chemical depletion wands that have a normally open float switch. If this needs to be changed to normally closed, follow the procedure below:

When the unit is turned on, the LEDs on the front will begin to cycle. If this is in an upward direction, the unit is set to normally open. If the LEDs cycle in a downward direction, the unit is set to normally closed.

To change to mode:

- Switch the unit on
- On start up all the LED's will flash in a cyclical sequence, during this stage, press and hold the mute button.
- The cycle direction of the LEDs will reverse
- Once the cycling stage has finished, release the mute button.

To change the mode back, switch the power off and repeat the process above.

Note: This feature is not available on the dispenser powered version of the Low Level Alarm (LLA2000L85D), which are permanently set to 'normally open' probes, in order to function with the EvoClean.

LLA2000L8S, LLA2000L8U

If a product is low in one of the eight monitored containers the appropriate LED will flash and the alarm will sound. Pressing the alarm 'mute' button will silence the alarm sound. The relevant LED will remain illuminated, with solid light, until the chemical has been successfully replenished.

LLA2000L8D

If a product is low in one of the eight monitored containers the appropriate LED will flash on the Low Level Alarm unit and on the EvoClean unit, the EvoClean alarm will also sound. Pressing the Evoclean 'enter' button (as shown below) will silence the alarm sound. The relevant LED on the low level alarm and the LED on the EvoClean will remain illuminated, with solid light, until the chemical has been successfully replenished.

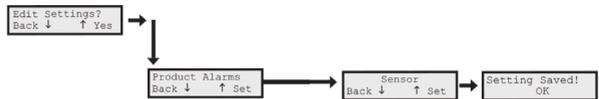


EvoClean 'enter' button.

The EvoClean will need to be configured to operate with the Alarm. This can be pre-set set using the 'EvoClean formula editor software' (Available from Hydro systems Europe website in 'downloads') or manually using the user interface screen on the product.

Manually configuring the EvoClean:

- Enter setup
- Edit settings
- Products alarms
- Sensor



warranty

Seller warrants solely to **Buyer** the products will be free from defects in material and workmanship under normal use and service for a period of one year from the date of completion of manufacture. This limited warranty does not apply to (a) hoses; (b) products that have a normal life shorter than one year; or (c) failure in performance or damage caused by chemicals, abrasive materials, corrosion, lightning, improper voltage supply, physical abuse, mishandling or misapplication. In the event the Products are altered or repaired by **Buyer** without **Seller's** prior written approval, all warranties will be void.

No other warranty, oral, expressed or implied, including any warranty of merchantability or fitness for any particular purpose, is made for these products, and all other warranties are hereby expressly excluded.

Seller's sole obligation under this warranty will be, at **Seller's** option, to repair or replace F.O.B. **Seller's** facility in Cincinnati, Ohio or Bracknell, England any Products found to be other than as warranted.

Limitation of Liability

Seller's warranty obligations and Buyer's remedies are solely and exclusively as stated herein. Seller shall have no other liability, direct or indirect, of any kind, including liability for special, incidental, or consequential damages or for any other claims for damage or loss resulting from any cause whatsoever, whether based on negligence, strict liability, breach of contract or breach of warranty.



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Drilling template

