

AMBIC®

HIGH VOLUME Dispensing System



OPERATING INSTRUCTIONS

leading best practice in livestock health management

Can be used with DeLaval C200 DOSING SYSTEM

Introduction

This High Volume Dispensing System has been designed to interface with a DeLaval HyGenius C200 or other application.

Safety



CAUTION: To avoid severe or fatal shock, always disconnect main power when servicing the unit. Access to LIVE PARTS is possible whilst the lid is removed.



CAUTION: Wear protective clothing and eyewear when dispensing chemicals or any other materials. Observe safety handling instructions (MSDS) of chemical manufacturers.

Components

The system comprises of a stainless steel enclosure fitted with 2 (AHD/200-230) or 3 (AHD/300-230) mains voltage AC pumps, a control board, two cable glands for power input and connection to HyGenius C200 unit.

The pumps deliver up to 2.5 litres / minute (with water) via 10 metres TO PUMP INLET

The control board has user terminations:-

230V 50 Hz mains inlet **(A)**

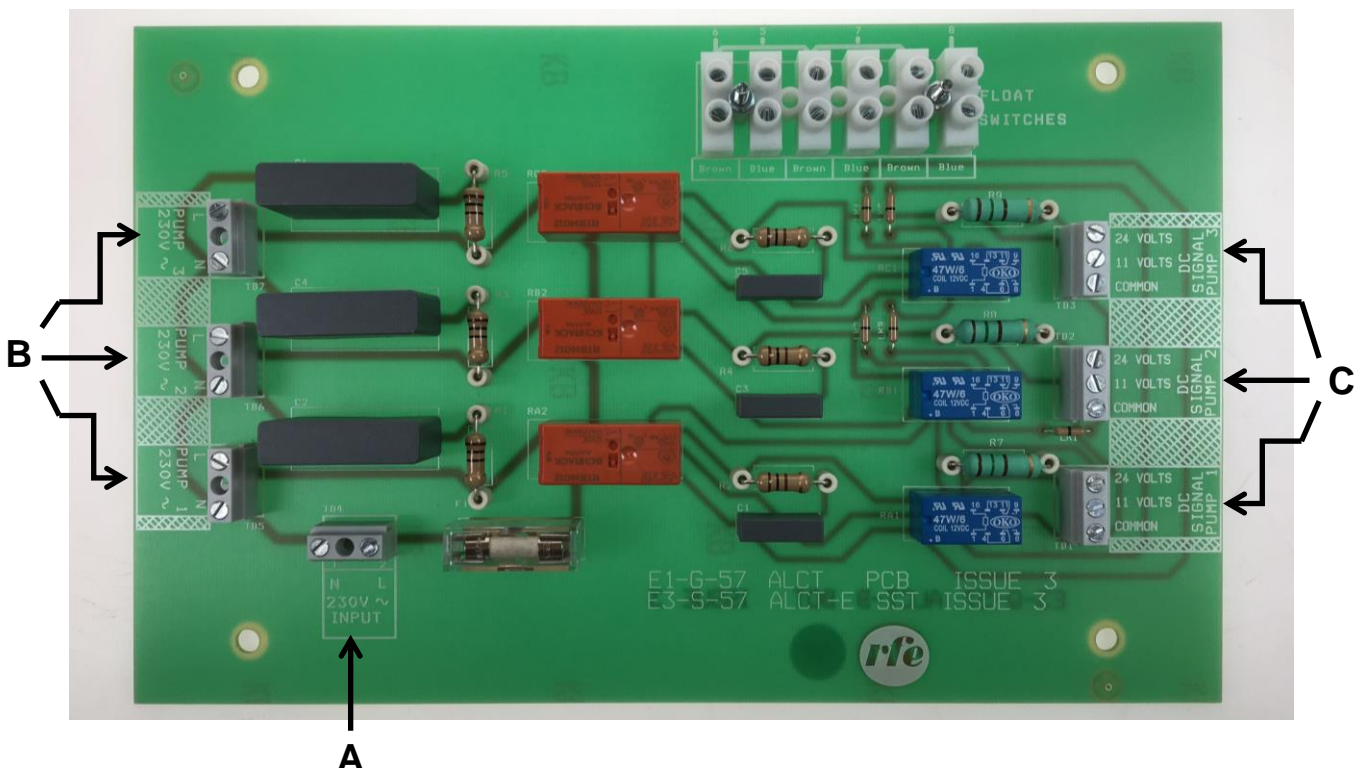
3 pump control inputs **(B)**

11V DC or 24V DC (polarity is not important) signal inputs **(C)**

Installation

A continuous supply of 230 50 Hz must be provided to the 230V AC input of the control board. **Provision must be made for full isolation of the supply.**

An EARTH lead must be connected to the M4 Ring terminal provided.



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A multi core cable from the C200 output is connected to the 2 or 3 pump inputs of the control board. Each input demands less than 100mA at 11V or 24V.

IMPORTANT – Cables must be positioned well clear of the pump cooling fans.

Mounting

Brackets are provided on the back of the unit to mount it onto a vertical service. See attached template.

Operation

Mains 230V 50 Hz supply must be established.

The pump requiring delivery is selected by applying an 11V DC or a 24V signal (of either polarity) to the appropriate pump channel. The selected pump will then commence delivery. When the machine signal is removed the pump will stop.

The actual dose is determined by the duration of the applied signal and/or from the HyGenius C200.

Pump selection is determined by the independent control system, or the HyGenius C200. Therefore, prevention of more than one pump running simultaneously is controlled independently or by the HyGenius C200. There is an extra safeguard in the control board circuit preventing the pumps from running simultaneously.

The motor is fitted with a resettable thermistor fuse which will stop the pump from running if the core temperature rises above the thermistor fuse value. The fuse will automatically reset when the core temperature drops back down to a safe level.

These types of pumps are best suited for intermittent dosing, or for continuous dosing times of less than 15 minutes.

IP Rating

To maintain the IP rating of the unit, any unused cable glands must be sealed using rubber bungs supplied.

Pump Maintenance

The pump is self-priming and will give long, trouble free, efficient operation. It is recommended that the peristaltic tube is lubricated with silicone grease through the hole in the front of the pump, and is replaced regularly.

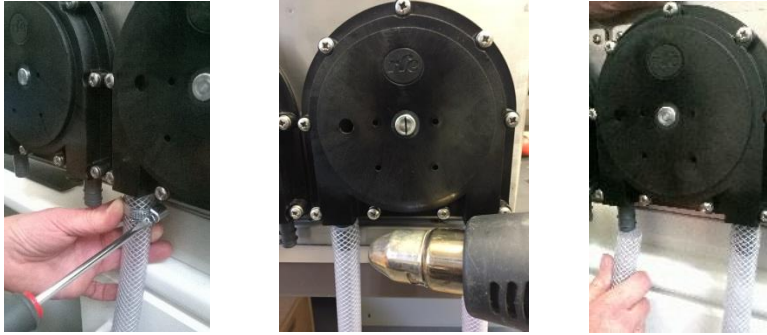
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Replacing the peristaltic tube

WARNING – Face mask and gloves must be used for protection from chemical contact.

1. If possible drain the chemical from the Pump Tube.
2. Switch the Pump OFF.
3. Remove the inlet (suction) and outlet (delivery) tube / hose. You may need to use a heat gun to warm the tube first, twist and pull back.

Warning – A sudden pull on the tube may splash residual chemicals from the tube.



4. Remove the nine screws holding the cover, and remove the cover slowly.



5. Gently pull the tube from the Pump housing and discard safely.

Warning – Residual chemical could splash from the tube.



6. Turn the roller assembly so that it is at the 12 o' clock position, if not already in that position.



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7. Apply a pea-sized amount of silicone grease to the new tube before fitting it. Fit the tube spigots to the pump block so that the spigot ridges are in the correct place.



8. Pinch the centre of tube and push it between the roller (at the 12 o'clock position) and the pump housing. Note: the spigots may come out from the base of the pump block. If this happens push them back into place to re-fit.



9. Fit the cover and secure using the nine screws and washers.



10. Fit the inlet (suction) and outlet (delivery) tube/hose. It may be necessary to warm the tube using a heat gun before fitting. If required, fit Jubilee clips.



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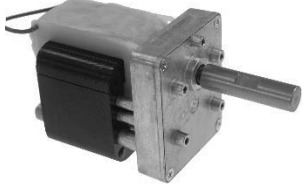
Troubleshooting

Fault	Cause	Remedy
Pump does not work	<p>Pump is not connected to the supply.</p> <p>The supply is Switched OFF.</p> <p>Pump is drawing current but not running.</p>	<p>Check that pump is connected to supply voltage.</p> <p>Switch the supply ON.</p> <p>Check the supply is capable of supplying the required current.</p>
No pump output delivery	<p>Pump is not running.</p> <p>Spinner assembly is not running clockwise.</p> <p>Inlet tube is not connected to the left hand spigot.</p> <p>Suction tube assembly is not properly inserted into chemical drum.</p> <p>Stiffener not fitted to the suction tube.</p> <p>Kinks in the suction and/or delivery tube.</p>	<p>Connect the power to the pump.</p> <p>Reverse the supply connections.</p> <p>Connect the inlet (suction) tube to the left hand spigot.</p> <p>Insert the suction tube into the drum.</p> <p>Fit a stiffener tube; this will help with keeping the suction tube to the bottom of the drum.</p> <p>Remove the kink and make sure it does not happen in the same place again.</p>
Pump does not lift the liquid	<p>Peristaltic tube needs replacing.</p>	<p>Replace the tube with correct size bore, spigot and shore hardness.</p>
Chemical seems to be lift and then dropping back.	<p>Peristaltic tube needs replacing.</p> <p>Air getting inside the tube.</p>	<p>Replace the tube with correct size bore, spigot and shore hardness.</p> <p>Check if the suction tube is fitted tight on the spigot and if necessary fit a jubilee clip.</p>

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Parts Listing

The following spare parts are available to order separately:

<p>AHP/100-SA Peristaltic Tube</p>	<p>AHP/102 Roller Assembly</p>
	
<p>AHP/103 Pump Block and Cover</p>	<p>ALP/115 Silicone Grease</p>
	
<p>AHP/100-230-80 230V AC Motor</p>	<p>ESA0329 ALCT PCB Assembly</p>
	



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