

AMBIC®

HIGH VOLUME Dispensing System



OPERATING INSTRUCTIONS

leading best practice in livestock health management

Can be used with most CIP DOSING SYSTEMS

Introduction

This High Volume Dispensing System has been designed to interface with most CIP dosing systems.

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.

Specifications

Pump delivery – These are **nominal** figures using Water at room temperature with a one metre suction and delivery tube:

	Spigot	Delivery Rate 9.6 Bore Santoprene tubing ml / min	Delivery Rate 12.7 Bore Santoprene tubing ml / min
Twin Pump	1/2"	1600	2500
	5/8"	1600	2500
Triple Pump	1/2"	1600	2500
	5/8"	1600	2500

Components

The system comprises of a plastic enclosure fitted with 2 (HDE/M-230-2-SA) or 3 (HDE/M-230-3-SA) mains voltage AC pumps, a control board, cable glands for power signal / low level float switch.

The control board has user terminations:-

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

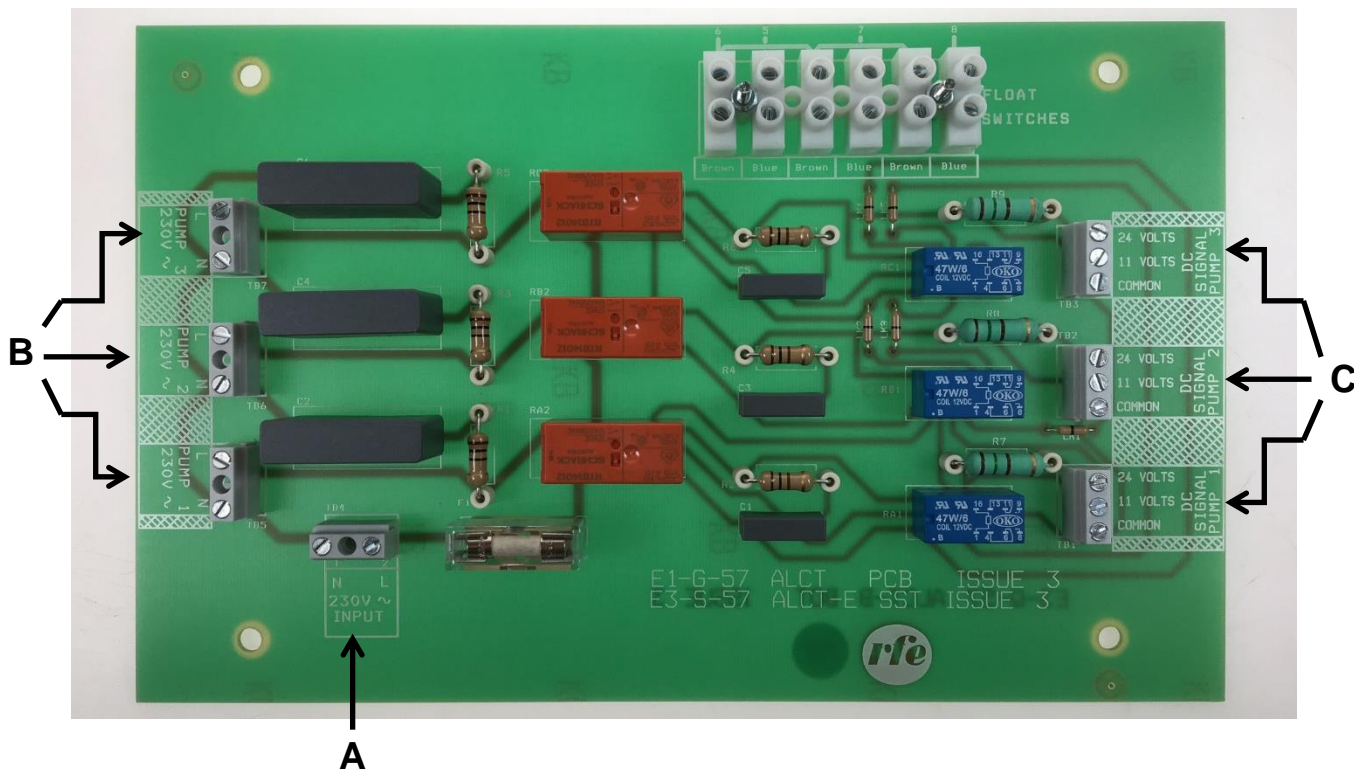
3 pump control inputs **(B)**

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

Installation

A continuous supply of 230V 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 Earth terminal provided.



A multi core cable from the CIP unit connects 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 surface. 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 CIP system.

Pump selection is determined by the independent control system, or the CIP system. Therefore, prevention of more than one pump running simultaneously is controlled independently or by the CIP system. 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.

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IP Rating

To maintain the IP rating of the unit, only knock through the cable gland holes that are required for your particular installation.

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.

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>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>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 at 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 with tubing of the correct material, size bore, and shore hardness; use appropriate spigots.</p>
Chemical seems to lift and then drop back.	<p>Peristaltic tube needs replacing.</p> <p>Air getting inside the tube.</p>	<p>Replace with tubing of the correct material, size bore, and shore hardness; use appropriate spigots.</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 style="text-align: center;">AHP/100-SA-12 AHP/100-SA-12-1/2 12.7mm Bore Peristaltic Tube</p>	<p style="text-align: center;">AHP/100-SA-09 AHP/100-SA-09-1/2 9.6mm Bore Peristaltic Tube</p>
<div style="text-align: center;">  </div> <p style="text-align: center;">Available with 5/8" or 1/2" Spigots</p>	<div style="text-align: center;">  </div> <p style="text-align: center;">Available with 5/8" or 1/2" Spigots</p>
<p style="text-align: center;">AHP/102-FP Roller Assembly</p>	<p style="text-align: center;">AHP/103 Pump Block and Cover</p>
<div style="text-align: center;">  </div>	<div style="text-align: center;">  </div>
<p style="text-align: center;">ALP/115 Silicone Grease</p>	<p style="text-align: center;">AHP/100-230-80 230V AC Motor</p>
<div style="text-align: center;">  </div>	<div style="text-align: center;">  </div>
<p style="text-align: center;">HD/001 ALCT PCB Assembly</p>	
<div style="text-align: center;">  </div>	



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