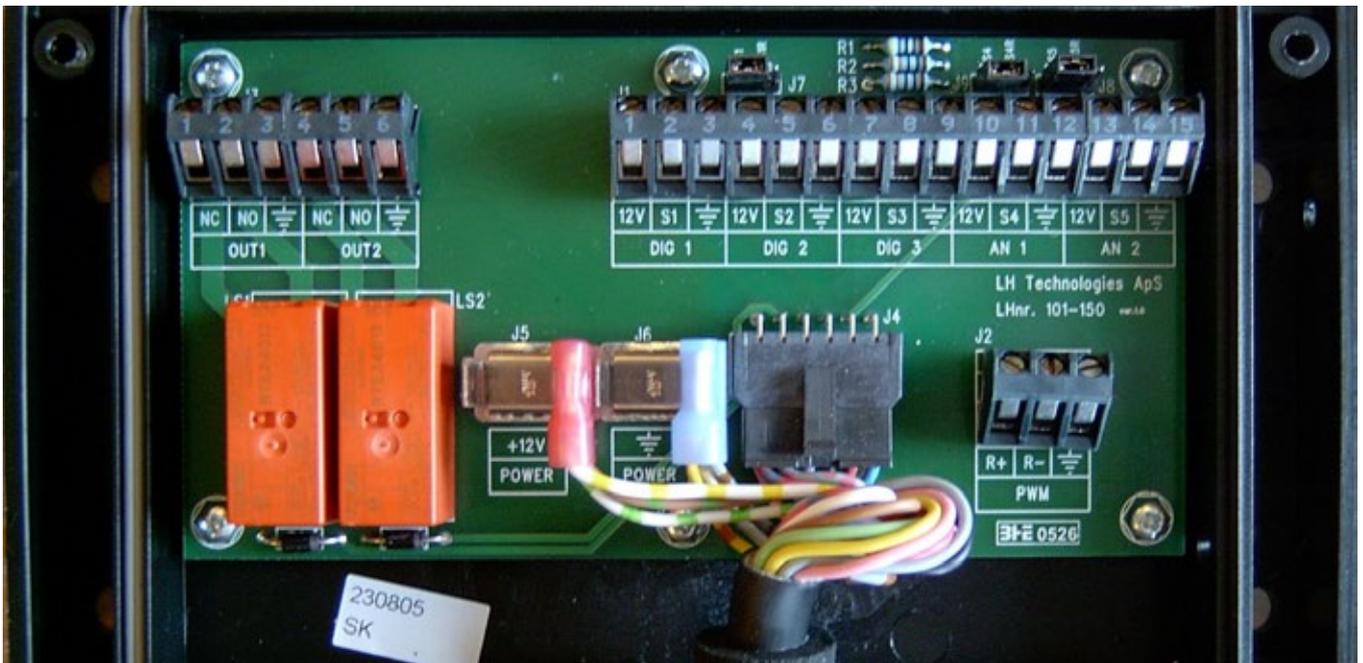


73 SERIES ADDFLOW



1. CONNECTIONS TABLE



Description	Connection	
Carrier Flow Meter	Supply	12 V
	Signal	S2
	Ground	
Liquid Flow Sensor	Supply (Brown)	12 V
	Signal (Black)	S4
	Ground (Blue)	
Master Signal (12V is spraying)	Supply (Brown)	
	Signal (Black)	S5



Jumpers	Position
J7	S1 R
J9	S4
J8	S5 if External master S5R if always active

2. GENERALITIES

Function	Key	Description
1. Power On		The unit will power on and show the first working screen. 
2. Power Off	 and 	The unit will power off.
3. Selection of Working Screen	 or 	

3. FUNCTIONALITY

Function	Display	Comments	Possible Actions
1. Injection Dose Rate		This is the desired dose rate for the injected product. It is set as a percentage of the main carrier flow.	 to change dose rate   to select another display value
2. Injection Flow		This is the actual flow of injected product.	  to select another display value
3. Carrier Flow		This is the actual main carrier flow.	  to select another display value
4. Injected Volume		This is the injected volume counter.	  to select another display value  to clear the counter

4. PRIMING

To activate priming, push the Pump switch to CAL



The pump will then start running and the display will show pumped volume.



When predefined volume has been injected, the display will go back to the previous working screen.

5. ALARMS

Function	Display	Comments	Possible Actions
1. Pump Not Running		Alarm message will appear when injection started but the pump is not turning.	Check cabling and pump
2. No Liquid Injected		This means that no liquid is injected. Alarm message will appear only if the liquid presence sensor is mounted.	Check plumbing and//or fill the tank.

6. PROGRAM

Function	Display	Possible Actions	Comments
Access/Exit		Push  for 3 seconds	Master must be off
1. Carrier Flow Meter		 to select another step  to enter carrier flow meter calibration (1.1) Push  for 3 seconds to escape program	
1.1		  to modify value  to validate value	Main carrier flow meter calibration in pulses/litre
2. Injection Pump		  to select another step  to enter calibration (2.1) Push  for 3 seconds to escape program	
2.1 Injection Pump Type		  to modify value  to validate value (2.2)  to escape (2)	Choices are: <ul style="list-style-type: none"> • Peristaltic • Piston 1 (head) • Piston 2 (heads) • Piston 3 (heads) • Piston 4 (heads)
2.2 Injection Pump Calibration		  to modify valve  to validate value (2)  to start automatic calibration (see "7. Pump Automatic Calibration" on page 4)	This is the complete pump calibration (all heads together). Units are pulses/millilitre. Average value is 3.00 per head for a piston pump.
3. Prime Calibration		 to select another step  to enter calibration (3.1) Push  for 3 seconds to escape program	
3.1		  to modify value  to validate value  to start Automatic calibration (see "8. Prime Automatic Calibration" on page 4)	This is the volume that must be pumped to prime the system.

7. PUMP AUTOMATIC CALIBRATION

Function	Display	Possible Actions	Comments
2.2 Injection Pump Calibration		<p>↑ ↓ to modify value</p> <p>P_{RO} to validate value (2)</p> <p>CLR to start Automatic calibration</p>	This is the complete pump calibration (all heads together.) Units are pulses/millilitre. Average value is 3.00 per head for a piston pump.
2.2.1		<p>CLR to exit Automatic calibration</p> <p>Push on the CAL switch on the pump to start the calibration.</p> <p>Collect the pumped volume.</p> <p>Keep the CAL switch pushed until calibration is finished.</p>	Pump must be ready to inject (tubes filled).
2.2.2		Display shows the counted pulses from the pump.	Release the CAL switch when enough pulses have been counted.
2.2.3		<p>↑ ↓ to set the pumped volume</p> <p>P_{RO} to validate</p>	Release the CAL switch when enough pulses have been counted.

8. PRIME AUTOMATIC CALIBRATION

Function	Display	Possible Actions	Comments
3.1 Prime Calibration		<p>↑ ↓ to modify value</p> <p>P_{RO} to validate value</p> <p>CLR to start Automatic calibration</p>	This is the volume that must be pumped to prime the system.
3.1.1		<p>Push on the CAL switch on the pump to start the calibration.</p> <p>Keep the CAL switch pushed until calibration is finished.</p>	
3.1.2		<p>Display will show injected volume.</p> <p>Release the CAL switch when system has been primed.</p> <p>P_{RO} to validate</p>	

