

Support Bulletin-SB-25-10052**Date-10.7.2025****Title: Erratic or No Carrier Flow on QuickDraw 3000 Controller****Product Line: Spray Tender****Model: QuickDraw Max****Level: Public****Author(s): Andy Boyle****Revision Letter: A****Overview:**

Users may experience erratic or no flow readings on their QuickDraw Display when using an ARAG electromagnetic carrier flowmeter. This can be caused by the type of carrier flowing through the meter, a faulty harness, or an inadequate power supply/charging device. This Support Bulletin covers what to do if you experience erratic or no flow readings on the QuickDraw Display when utilizing an ARAG electromagnetic carrier flowmeter.

No Carrier Flow on Display		
Step #	Things to Check	Solutions
1	Is there Carrier in Tank or is the Strainer Plugged?	Confirm that tank valves are open, solution pump is ON, Carrier Screen is clear, and carrier is flowing through the flowmeter.
2	Are Carrier Valves open, and Solution Pump Turned ON?	Confirm that tank valves are open, solution pump is ON, and carrier is flowing through the flowmeter.
3	Is there an LED illuminated on the Flowmeter?	Normal functionality: Solid Green with No Flow and Solid Blue with Flow. If any other colors are shown or flashing, see Flow LED Diagnostics Figure B for additional information.
4	Does the Flowmeter have the correct Power and Signal voltages?	Test flowmeter harness with a multimeter. - Pin A Signal to Pin C Ground = 4.5-5V - Pin B Power to Pin C Ground = 12 V See Figure A for additional information
5	Are the cabling and QuickDraw 3000 Display in good working order?	Use a paperclip between Pin A Signal and Pin C Ground to perform a Tap Test or use Tap Test Cable Part Number 212-03-3912Y1. Set the flowmeter pls/gal to 1 and the flow should increase when the tap test is performed.

Erratic or Inaccurate Carrier Flow on Display		
Step #	Things to Check	Solutions
1	Has the flowmeter been calibrated for this carrier?	Perform an Automatic Carrier Calibration
2	Is the carrier conductive?	Test carrier for conductivity must be a minimum of 300 $\mu\text{S}/\text{cm}$ (microSiemens per centimeter) If the carrier tests below 300 $\mu\text{S}/\text{cm}$ - Change to a carrier that has higher conductivity - Replace ARAG carrier flowmeter with Polmac Flowmeter
3	Is carrier pretreated with Thiosulfate or similar products?	- Run water through the flowmeter at the end of the batch to rinse the flowmeter - Try adding the treatment after the carrier flowmeter - Replace ARAG electromagnetic carrier flowmeter with Polmac carrier flowmeter

4	Is the Power Inverter, Battery, or charging mechanism working correctly?	If using a Power Inverter: • Try a different Power Inverter • Disconnect Inverter and try a standalone battery (Recommended NAPA 208-NAPA7578 – 12 Volt Battery BCI Group 78 or equivalent customer supplied battery) If using a battery: • Isolate the battery by unplug external charging mechanisms including Solar panels, Charging mechanisms from engine pump assembly and Voltage regulator/rectifier. • Unplug external batteries or chargers including the charging supply from the vehicle towing the trailer. • Perform a battery load test. A healthy battery shows a minimum of 12.4 volts. If the battery shows less voltage or fails a load test, try a new battery. (Recommended NAPA 208-NAPA7578 – 12 Volt Battery BCI Group 78 or equivalent customer supplied battery)
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Figure A



1 2 3

Remove red guard to reach pins. Be careful so you don't break red side keepers.



Troubleshooting Tip:

3-pin AMP SuperSeal 1– Ground 2– 12V Power 3– Signal

Power to Ground should be 12 volts.
Signal to Ground should be 4.5 to 5 volts
Do Tap Test between Signal and Ground to test harnessing.

Additional Tip:
If flowmeter is not reading and the harnessing has checked out OK with voltage readings and tap test, try cleaning the inside tube of flowmeter with warm soapy water and a soft brush. Sometimes, a film builds up on the electrodes.

3-pin MP Tower A- Signal B- 12V Power C- Ground

Figure B

Light	Light Description	Flowmeter Status
	OFF (not illuminated)	The flowmeter is not powered
	Blinking Green	The flowmeter is waiting to acquire an address on the CAN line to which it is connected
	Solid Green	Presence of STILL liquid inside the flowmeter

Light	Light Description	Flowmeter Status
	Solid Blue	The flowmeter is reading the passage of the liquid inside
	Solid Violet	No liquid has been detected inside the flowmeter
	Solid White	Cleaning of the reading electrodes in progress
	Blinking Red	Error; the error codes are indicated through blinking pattern of the red light. Description of error codes listed below.
	Solid Red	Severe Error; Contact a service center

Number of Red Blinks	Error Code Description	Recommended Solutions
2	Hardware Error	Contact ARAG
3	Corrupted Calibration Data	Contact ARAG authorized service
4	Power supply voltage too high or too low	Check the power supply voltage and restore the correct value
5	Unstable reading	Check that the flow is normal and make sure to have complied with the hydraulic connection instructions (position, pipe dimensions, straight sections before and after the flowmeter, etc.)
6	Too high temperature has been detected	Check ambient temperature and, if outside the specified limits, turn off the device and, before turning it on again, wait for the temperature to fall within the specified ones
7	Setting data are corrupted and the default ones have been restored	Contact an ARAG authorized Service Center to check data integrity and to restore correct operation Check that all settings are as required, validate data by accessing the "New notifications" menu and press OK (the operation can be performed only by skilled technical staff)