

FORTIFIER Troubleshooting Guide

<u>Symptom</u>	<u>Problem</u>	<u>Solution</u>
Scale drops off/doesn't show up	Digistar VT does not show up on homepage	<p>Check Digistar ISO connection, the 6 pin Deutsch connector (18" whip out the bottom of the SL2140 ISO control box) for corrosion/damage/bad connection.</p> <p>Remove cover (4 screws) on the SL2140 ISO. On the right side there should be 4 blue LED on, and the 3 status LED on the left side should be off.</p> <p>Check system voltage, on Montag screen, under diagnostic button, under ECU, voltage should be 12.2V or greater.</p> <p>Check ISO Connector at tractor for corrosion/connection.</p> <p>Restart tractor, let screen power up for 20 sec before starting tractor.</p> <p>Verify all ISO connections are correct. Verify correct ISO terminations are in place.</p> <p>If using a monitor that requires a USB key for data, try a different USB key, or try removing it.</p>
Digistar VT good, not on Montag homepage	Scales not set up	Verify scale system setting is set to "Yes" on Montag VT.
Scales showing erratic readings	Possible bad Scale Link ISO node, j-box, or load cell	<p>Verify correct Digistar Cal # for both tanks are setup 115030 and cal 5333.</p> <p>Use GT 400 interactive troubleshooting guide and watch trouble shooting video under controller info tab on Montag website for troubleshooting diagnostics.</p> <p>If testing loadcell by tap test, if bad will jump 1-2 thousand.</p> <p>Look for areas of hang-up or binding.</p>
Calculated weight and actual weight off	Set-up incorrect	<p>In hopper screen equalize weights and recheck.</p> <p>Check cal factor correct, check density of the product with Density scale.</p> <p>Check # of rows and total implement width.</p> <p>Configure a new product and retry.</p> <p>Example set-up 200lb/ac, 5 mph, 65lb/ft³, 12 row, 30' total width, Cal factor .03, the auger speed should be 31 ± 1 RPM auger speed</p>
	Calibration factor off	<p>Do calibration test- either catch or no-catch test. No catch test calibration must be started with fan on and ended with fan on.</p> <p>Also start and stop test on level ground for scale accuracy.</p> <p>Verify no sheared couplers.</p> <p>Verify hydraulic motor drive shaft couplers are properly connected.</p>
Montag screen drops off/doesn't show up	Montag VT does not show up on home page	<p>Check ISO Connector at tractor for corrosion/connection.</p> <p>Restart tractor, let screen power up for 20 sec before starting tractor.</p> <p>Verify all ISO connections are correct. Verify correct ISO terminations are in place.</p> <p>If using a monitor that requires a USB key for data, try a different USB key, or try removing it.</p> <p>Make VT1 post monitor and VT2 Armrest (Deere only)</p> <p>Check Digistar ISO connection, the 6 pin Deutsch connector (18" whip out the bottom of the SL2140 ISO control box) for corrosion/damage/bad connection.</p>
Controller not working	Erratic and inconsistant results from controller	<p>Delete object pool on monitor.</p> <p>Check system voltage, on Montag screen, under diagnostic button, under ECU, voltage should be 12.2V or greater.</p>
Slide gate will not open	Slide gate will not function	<p>Make sure hydraulics are engaged.</p> <p>If in road mode, push road mode button to get to application mode</p> <p>Check slide gates from diagnostics screen.</p>
	Slide gates open/close opposite controller	<p>Verify solenoid and position sensor harness connections are good and harness is in good condition.</p> <p>Harness connections at coil are swapped. Switch red and green harness at coil on hydraulic block on Fortifier.</p>
No Product being delivered -All rows	Fan not turning	<p>Verify all tractor hydraulic couplers are fully engaged</p> <p>With tractor off and key removed, see if fan rotates by hand. If fan is not binding on housing, and does not rotate by hand, replace fan motor.</p> <p>Fan not calibrated or out of calibration. Calibrate per instructions in ISO Dry Rate Controller Operation Manual.</p> <p>Fan rotation must be clockwise (CW) when viewed from the screen side of fan. If rotation is not CW, see Hydraulic Schematics in Montag manual and plumb as shown for your machine.</p> <p>If analog gauge reads correct, but digital transducer reads incorrect, calibrate air sensor following instructions in manual.</p> <p>Set gap between fan and shroud to 1/4 inch (6MM).</p> <p>Check gap between fan impeller and end of housing (.0625-.156").</p> <p>Check for any air leaks in plenum tray or air chambers or anywhere in system.</p>
	Fan air gauge pressure less than 12 inch H2O	

	Augers turn wrong direction	Augers must turn CCW. Check hydraulic schematic and verify each hydraulic motor is in correct position. Check all augers and clean out system. Close slide gate and run meters in diagnostics mode. Check all augers for rotation and replace any sheared couplers. Clean out hoses and make sure air is coming out each hose at toolbar before starting to apply fertilizer.
	Auger(s) not turning	Confirm fan is running. Augers will only turn while fan is running. Confirm augers are not obstructed. Safely remove any obstructions by following instructions in section 9.9 in Montag manual. Check controller set-up is complete with correct product info (density, cal factor, rate, ground speed is registering. If using prescriptions, verify mapping is in correct format and entered correctly. Verify prescription icon is by rate on home screen, and a non-zero target rate is on display side.
	Master switch/ work switch not set-up correctly	Verify sections are on and if using section control, be sure not located in an already applied area. Follow instructions in manual for correct set-up. Work switch icon on status line will toggle on/off when toolbar is lowered/raised. When master is toggled on the off master icon on the meter will switch to augers and section boxes will become lit.
	Problem with encoder or PWM valve	Shut slide gate and run meters in diagnostic screen. If still does not run, set meters to 100% and check for 12 VDC at PWM valve. Look for harness damage. If augers turn but no RPM, check encoder harness for given tank. Test for 12 VDC on pins 1 & 3 of encoder harness. Remove plastic cap over encoder motor shaft to verify hydraulic flow at encoder motor. If 12VDC and motor turning replace sensor in motor. Follow replacement instructions. (Entire motor must be returned w/ speed sensor unadjusted if still under warranty)
	Controller not seeing speed	Check that controller is seeing speed and correct speed when machine is moving. Verify GPS and display is properly set-up and functioning.
No Fertilizer in 1 or more rows	Coupler(s) sheared/hoses plugged	Check all augers and clean out system. Close slide gate and run meters in diagnostics mode. Check all augers for rotation and replace any sheared couplers. Clean out hoses and make sure air coming out each hose at toolbar before starting to apply fertilizer.
	Product Bridging	With fan still running look at auger cartridge for bridging or obstruction which does not allow product to flow evenly. Shut off fan and then back on to see if issue persists. Air pressure may be too high Open/close slide gate Product too moist or has too many fines
Not holding rate	Alarm "Metering drive cannot maintain target rate"	Check for correct product info (density, cal factor, rate). Augers RPM should be between 5- 105 range. Verify correct ground speed. Adjust meter amplification factor. Add a new product with correct numbers. Clear object pool by following monitor manufacturers instructions. Power cycle controller Verify correct cal factor for that product for that meter. May need to increase ground speed if running to low of an auger speeds (under 10 RPM).
One tank not holding rate	Set-up incorrect Bad speed sensor cable	Check for correct product info (density, cal factor, rate). Shut slide gate and run meters in diagnostic, verify shaft RPM's for both tanks. Check all harnesses and harness connections to motor encoders and PWM valves. Power cycle controller/display.
Section Control not working	Sections turn off, but will not go back on	If running an Ag Leader, verify target rate entered on both Ag Leader and Montag. If section box gray with red X, then touch button again to shut off manual section button. If section box red with red X, then map or controller is turning section off. If in an already applied area, section will be red. Move to an area not applied yet, or shut off section control on display. If a prescription is loaded, move within map area. Verify look ahead and implement geometry settings are correct.
Mapping not working	Layers not set-up correctly	Contact monitor dealer for set-up instruction for 2 product application.
Rate is not correct	Using bin chaining	Follow instructions in controller operations manual. Total auger RPM must be under 130 RPM to prevent plugging.

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