

# ASX500 SERVICE AND SUPPORT





SERVICE MANUAL - 01



### **OVERVIEW**

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### **REVISION HISTORY**

- July 2<sup>nd</sup>, 2019 Created
- May 11<sup>th</sup>, 2020 Amended

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# TOOLS

- Small and medium Phillips screwdrivers, standard screwdriver, utility knife, etc.
- 5.5mm nut driver.
- Paper towels or rags for cleanup.
- Dispense cups (16-32 oz.)
- Gallon bucket or container that can be purchased.
- Electronic scale.
- 1oz calibration cups.
- Nitrile or latex gloves.



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# **OVERVIEW**





# **INSTALLATION ASX500**

**NOTE**: Pictures referenced are from AS9500. The AS7500 appearance will be similar in profile.

- Unpackage the ASX500 series Dispenser and all accessories.
- Find the ASX500 power cord in the accessories box and connect one end to the receptacle in the back of the machine and the other end to the power strip. The dispenser should power up.

**Note**: If the machine does not power up, turn it on by flipping the switch on the front panel of the machine.





• AS9500 setup the monitor and computer on the monitor/computer stand.



- AS7500 install computer/monitor arm onto the AS7500.
- Connect the WIFI antenna to the computer.
- Route the monitor and computer power cables to the back of the machine. Connect the display port to the monitor and computer and power cords to power strip.
- Place the keyboard on the keyboard tray and mouse on top of the either lid cover.
- AS9500 place the barcode scanner and printer on the monitor / computer stand.



- AS7500 barcode scanner and printer shelf can be installed on right or left side.
- AS7500 setup tiny computer/monitor onto computer/monitor arm.
- Route the keyboard / mouse cables and connect cables to the computer.
- AS7500 route the monitor cables behind the computer monitor arm and secure with clips to keep in place.
- Route the cables and connect USB cables to computer and printer power cord to the power strip.
- Power up computer and monitor.
- Connect the ethernet connector to the Michelangelo PCB (Connector located on the back of the machine) and dongle adapter USB connector to the computer.
   Note: The Ethernet cable and dongle adapter are in the PC accessories box. (Reference ASX500 Ethernet/Dongle Adapter Connection Setup in following section within manual)



- Place the ASX500 in its final location.
- With reference to the AS9500 place and secure the 1 gallon and 5-gallon shelf assembly to the AS9500.

Note: The shelf bracket and hardware will be in the same box as the power strip.





- Test and verify all operational within the software being used to operate the ASX500.
- Installation is complete.



# ASX500 ETHERNET/DONGLE ADAPTER CONNECTION SETUP

The following set of instructions will show how to setup Ethernet/Dongle Adapter connection setup for the ASX500 Series Dispensers.

 Set up ethernet connection for the ASX500 Series, connect the Ethernet cable from the ASX500 dispenser to the computer.
 Note: The Ethernet cable can be connected to the Ethernet connector on the computer

**Note**: The Ethernet cable can be connected to the Ethernet connector on the computer without the Dongle Adapter in some cases.



• In Windows, go to Control Panel.



• Click on Network and Sharing Center.



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<ul> <li>M All Control Panel Items</li> <li>← → * ↑ S &gt; Control Panel &gt; All Control Panel Items</li> <li>✓ ⊘ Search Control P</li> </ul>							
Adjust your cor	nputer's settings						View by: Large ic
Administ	trative Tools	AutoPlay	2	Backup and Res (Windows 7)	tore	R	BitLocker Drive Encryption
🛐 Color Ma	anagement 🧃	Credential Manager	ť	Date and Time			Default Programs
Device N	lanager 🖓	Devices and Printers	٩	Ease of Access C	Center	82	File Explorer Options
File Histo	ory 📕	Flash Player (32-bit)	A	Fonts		R	Indexing Options
Infrared		Internet Options		Keyboard		9	Mouse
Network Center	and Sharing	Phone and Modem	٢	Power Options		ð	Programs and Features
Click on Ch	Network and Sharing Center	ettings.	ork and 9	haring Center			
Y T S Control Panel > All Control Panel items > Network and Sharing Center View your basic network information and set up connections							
	Control Panel Home	View your active networks					
	Change adapter settings Change advanced sharing settings Media streaming options	FM-GUEST 2 Public network		Access ty Connecti	pe: Internet ons: 📶 <del>Wi-Fi (FM</del>	-GUEST	1
		Unidentified network Public network		Access ty Connecti	pe: No netwo ons: 📱 Ethernet 2	rk acce	55
Change your networking settings Set up a new connection or network Set up a broadband, dial-up, or VPN connection; or set up a router or access point. Troubleshoot problems Diagnose and repair network problems, or get troubleshooting information.							

• Right-click on the device (this could be an existing ethernet port or USB/ethernet adapter) and select Properties.

**Note**: Make sure you select the correct one that is connected to the dispenser.



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• Select "Internet Protocol Version 4 (TCP/IPv4)" and click Properties button.

Ethernet 2 Properties					
Networking Sharing					
Connect using:					
Realtek USB GbE Family Co	ontroller				
	<u>C</u> o	onfigure			
This connection uses the following	items:				
I <u>n</u> stall <u>U</u> nin:	stall Pro	operties			
Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.					
	ОК	Cancel			

- Select "Use the following IP address:".
- For IP address: enter 192.168.1.101.
- For Subnet mask: enter 255.255.255.0.
- For Default gateway: enter 192.168.1.1.
- Select "Use the following DNS server address".
- Enter 192.168.1.100
- Click OK.



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🖗 Etl	nernet	2 Properties	2	X		
Netwo	orking	Sharing		ble unplugge e GbE Family		
	Intern	et Protocol Version 4 (TCP/IPv4)	Properties	×		
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The You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.						
		) <u>O</u> btain an IP address automatical	у	_		
B	Ī	P address:	192.168.1.1	101		
	s	ubnet mask:	255 . 255 . 255 .	0		
	9	efault gateway:	192.168.1.	1		
Obtain DNS server address automatically						
	0	Us <u>e</u> the following DNS server add	resses:			
1	E	referred DNS server:	192.168.1.1	100		
4	A	lternate DNS server:				
_	[	Validate settings upon exit	A	d <u>v</u> anced		
tems			ОК	Cancel		

• Ethernet/Dongle Adapter connections is complete.



# **ASX500 CALIBRATION PROCEDURE**

The following procedure will provide the steps on how to calibrate using the Field Dispenser Calibration Tool for ASX500. This is the new process to calibrate the pumps. New tool can be used in automatic mode with a serial enabled weighing scale or without in a manual mode. The tool calculates the required VPR (Volume Per Revolution) parameter and updates the dispenser, then verifies that the calibration was successfully completed. The VPR parameter will automatically get stored in the machine configuration.

### **Auto Calibration**

- Open the Field Dispenser Calibration Tool.exe by double clicking on the icon.
- Select Automatic Calibration tab.
- For Automatic Calibration, setup your scale and select the correct Scale Connection Port and click on Connect button in the section Scale Connection.
- Set your scale under the nozzles.
- Select the colorant to calibrate under **Dispenser Canisters** section and under **Enter Density** section enter the WPG of that colorant.
- Click on **Start** under the **Calibrate** section.
- The calibration will automatically start and when complete it will prompt you it is finished.
- Repeat steps 4,5, and 6 if doing multiple colorants.
- Close Field Dispenser Calibration Tool.
- Dispense Calibration Complete.

### **Manual Calibration**

- Open the Field Dispenser Calibration Tool.exe by double clicking on the icon.
- Select Manual Calibration tab.
- For Manual Calibration, just setup your scale under the nozzles.
- Select the colorant to calibrate under **Dispenser Canisters** section and under **Enter Density** section enter the WPG of that colorant.
- Click on **Start**, to commence the manual calibration. It will prompt you to tare the scale go ahead and tare the scale.
- Click on **Dispense** Button to start the first dispense
- The Field Dispenser Calibration Tool will prompt you to enter the weighted amount dispensed on the scale into **Calibration Tests** section.
- **Note**: You will be prompted when to Dispense and tare the scale on the screen just follow the prompts.
- Repeat steps 4,5, 6 and 7 if doing multiple colorants.
- Close Field Dispenser Calibration Tool.
- Dispense Calibration Complete.



# **ASX500 DAILY MAINTENANCE**

- Clean nozzle sponge and ensure it contains a small amount of moisture.
- Purge only when software provides direction command to purge one or more colorants.
- Don't overfill canisters and fill with full containers of colorant. Do not use partial containers.
- Keep machine surface clean using a non-abrasive cleaner and wipe up any spills immediately.



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# **ASX500 HARDWARE**

### **Power and Control**

The ASX500 SCHEMATIC OVERVIEW





# **ASX500 REPLACEMENT PART GUIDELINE**

Step by step guideline for part replacement for Fluid Management Authorized Service Technicians

# **24VDC Power Supplies**

The following procedures cover the ASX500 24VDC power supply removal and replacement.



24 VDC Power Supply, Part Number 38164

### 24VDC Power Supply Removal

- Disconect power and remove front and back panel.
- Locate 24VDC Power Supply.
- Remove the input 120VAC connector and the output 24VDC connector.





- Remove the input 120VAC connector and the output 48VDC connector.
- Use a Phillips driver to remove the screw located in the front of the power supply tray. Pull out the power supply tray and place the tray on a flat surface for ease of replacement.



- Use a 5.5mm nut driver to remove the four mounting nuts located on each corner.
- Remove power supply.





### 24VDC Power Supply Replacement

- Place new 24VDC power supply on the four mounting studs.
- Use a 5.5 mm. nut driver to install and tighten the four mounting nuts.
- Connect the output 24VDC connector on right and the input 120 VDC connector on left.
- Connect the output 48VDC connector on right and the input 120 VDC connector on left.
- Close the front and back panels.

# **48VDC POWER SUPPLIES**

The following procedures cover the ASX500 48VDC power supply removal and replacement.



48 VDC Power Supply, Part Number 38673

### **48VDC Power Supply Removal**

- Disconnect power and remove front and back panel.
- Remove the input 120VAC connector and the output 24VDC connector.





- Remove the input 120VAC connector and the output 48VDC connector.
- Use a Phillips driver to remove the screw located in the front of the power supply tray. Pull out the power supply tray and place the tray on a flat surface for ease of replacement.



- Flip the power supply tray upside down. Use a Phillips driver remove the four Phillips screws.
- Remove power supply.



### **48VDC Power Supply Replacement**

- Place new 48VDC power supply on the power supply tray.
- Use a Phillips driver to install and tighten the screw.
- Connect the output 24VDC connector on right and the input 120 VDC connector on left.
- Connect the output 48VDC connector on right and the input 120 VDC connector on left.
- Close the front and back panels.



# DaVINCI POWER BOARD REMOVAL AND REPLACEMENT

The following procedures cover the ASX500 DaVinci Power board removal and replacement.



DaVinci Power Board, Part Number 38575

### **DaVinci Power Board Removal**

- Disconnect power and remove front panel.
- Remove all harnesses attached to the board.
- Using a 5.5mm. nut driver remove the 5 nuts.
- Remove the board.





### **DaVinci Power Board Replacement**

- Place the new board on the 5 mounting studs.
- Use a 5.5mm nut driver to install and tighten the nuts.
- Connect all harnesses back onto the board (no specific order).
- Close the front panel. Plug in power back into dispenser
- Run pulse test to verify operation if functional.

# MICHELANGELO DISPENSE COORDINATOR BOARD REMOVAL AND REPLACEMENT

The following procedures cover the ASX500 Michael Angelo dispense coordinator board removal and replacement.



Michelangelo Dispense Coordinator Board, Part Number 38576



### Michelangelo Dispense Coordinator Board Removal

- Access IDEX Dispenser Service and verify the failure.
- Disconnect power to the dispenser.
- To access the Michelangelo PCB, remove the top plastic cover.
- Locate the Michelangelo dispense coordinator board.
- Disconnect all connectors.
- Use a 5.5mm. nut driver to remove the five mounting nuts and remove the board.
- Remove the faulty Michelangelo PCB.
- Remove the SD Card from the faulty Michelangelo and install into new Michelangelo PCB.
- Remove the SOM from the faulty Michelangelo and install on the new Michelangelo PCB.



### **Michelangelo Dispense Coordinator Board Replacement**

- To install new board, put new Michelangelo dispense coordinator board in place and replace and tighten the five M3 mounting nuts.
- Connect all harnesses to the new Michelangelo PCB.
- Place the top cover back on the dispenser.
- Connect power back to the dispenser.
- Set Can Node ID by using the following tool: FM CANOpen Service Tool (Set ID Command) or NFC Application (ST25 or Tomasz Application)

**Note:** The Node ID for the Michelangelo PCB is always 3. Changing Node ID via NFC can be done prior to connecting to the dispenser.

- Power cycle the machine to load the new Node ID.
- Update the firmware to the newest version.
- Test the new Michelangelo PCB.



# MICHELANGELO SOM (SYSTEM ON MODULE) REPLACEMENT

- Access IDEX Dispenser Service and verify the failure.
- Turn off the machine or unplug the power cord from the machine.
- To access the SOM on Michelangelo PCB, remove the top center plastic cover.
- Disconnect and remove the Michelangelo SOM from the Michelangelo PCB.
- Install the new Michelangelo SOM on the Michelangelo PCB.
- Turn on the machine or plug in the power cord to the machine to power on.
- Install the DispenserConfig.json file on the SOM.

**Note:** If the dispenser is not using Fluid Sense feature, check and correct canister levels.

- Update the UIDD to the latest version.
- Test the new Michelangelo SOM.
- Place the top center plastic cover back on the machine.
- SOM Replacement is complete.



Michelangelo (SOM) -Part Number 38810



# **CANISTER ASSEMBLY**

The following two procedures cover the removal and installation of ASX500 canister assembly.



4L Canister Kit – Part Number 39038 and 6L Canister Kit – Part Number 39037

### **Canister Assembly Removal**

- Access IDEX Dispenser Service and verify failure.
- Disconnect power to the machine.
- Remove the access panel closest to the affected canister assembly.
- Locate the canister and pump assembly to be replaced.
- Disconnect the wiring harness that is plugged into to the Rembrandt pump board. Press in the locking clip and pull out connector.







• Remove the quick-connect fitting (JG connector) from the DVX pump. To remove, compress the inner collet towards the fitting. While holding the collet inward, pull on the connector, and remove it from the pump.



• Drain the colorant from quick-connect fitting into a bucket.



• Open canister cover lid and remove the canister assembly. Push up on the base of the canister to remove canister.





• After canister removal, pour colorant into a clean bucket. **Note:** If the consistency of the colorant is not like a fresh can, do not re-use colorant.

### **Canister Assembly Replacement**

- Insert replacement canister assembly into the dispenser. FM Service will automatically recognize the pump and its position.
- Connect the quick-connect fitting (JG connector) to the DVX pump nipple or the tubing.
- Connect the power harness to the Rembrandt PCB.
- Pour reserved colorant back into canister.
- Turn on and re-initialize the dispenser.
- Go into IDEX Dispenser Service.
- Perform a 5 oz. manual dispense. Check tubing for leaks.
- Test and verify canisters agitate by executing an agitation command.
- Re-install panel.
- Perform a 1 oz. dispense to check calibration with a scale.

# FLUID SENSE CANISTER REPLACEMENT AND CALIBRATION

The following two procedures cover the removal and replacement of ASX500 faulty canister/fluid sense.

### **Canister/Fluid Sense Removal**

- Access IDEX Dispenser Service and verify the failure.
- Disconnect power to the Dispenser.
- Follow Canister Removal and Canister Assembly process.
- For Fluid Sense Calibration fill canister to top of highest blade on the agitation paddle
- Go into IDEX Dispenser Service
   Note: The Fluid Sense Calibration can only be completed with the dispenser uninitialized. DO
   NOT INITIALZIE THE DISPENSER PRIOR TO THE FLUID SENSE CALIBRATION.
- Click on the drop-down arrow next to the Canister on the left side of the screen to expand this section.
- Click on the drop-down arrow next to the colorant you replaced to the canister/fluid sense.
- Click on pump.
- On the right select Calibrate Fluid Sense and click Execute to calibrate the chosen Fluid Sense.



• Verify the level is correct by clicking on the colorant you calibrated on left side of the screen.

# **AGITATION REMOVAL AND REPLACEMENT**

The following two procedures cover the removal and replacement of ASX500 agitation motor assembly.



Agitation Motor, Part Number 39054

### **Agitation Motor Removal**

- Access IDEX Dispenser Service and verify the failure.
- Locate the canister and pump assembly to be replaced.
- Follow canister removal process.
- Disconnect the wiring harness that is plugged into to the Rembrandt pump board.







- Remove the 4 screws holding the agitation bracket.
- Remove old agitation motor.



### **Agitation Motor Replacement**

- Take to old agitation roll pin and shaft and align the roll pin and shaft on the new agitation motor.
- Insert the new agitation pin and shaft into the canister
- Install the 4 mounting screws and tighten the agitation bracket to the canister.
- Insert canister assembly into the dispenser.
- Connect the quick-connect fitting (JG connector) to the DVX pump nipple or the tubing.
- Connect the power harness to the Rembrandt PCB.
- Pour reserved colorant back into canister.
- Turn on and re-initialize the dispenser.
- Go into IDEX Dispenser Service.
- Perform a 5 oz. manual dispense. Check tubing for leaks.
- Test and verify canisters agitate by executing an agitation command.
- Re-install panel.



### **PUMP ASSEMBLY REMOVAL AND REPLACEMENT**

The following two procedures cover the removal and replacement of ASX500 pump assembly.



Pump SF Part Number – 38710



Pump HS Part Number - 38690

### **Pump Assembly Removal**

- Access IDEX Dispenser Service and verify the pump failure.
- Determine the Node ID of the failed pump and make note of it.
- Disconnect power to the Dispenser.
- Remove the panel nearest to the pump failure.
- Locate the faulty pump.
- Remove the canister assembly following the canister assembly replacement steps.
- Disconnect the agitation motor harness from the Rembrandt PCB.
- Disconnect the Fluid Sense harness from the Rembrandt PCB.
- Remove the pump assembly from the canister pump bracket by removing the four screws holding the pump in place and loosening the hose clamp.







### Pump Assembly Replacement

- Install the new pump assembly to the canister pump bracket with the four removed screws.
- Tighten the hose clamp on the pump inlet.
- Connect the agitation harness to the new Rembrandt PCB.
- Connect the Fluid Sense harness to the new Rembrandt PCB.
- Insert the canister back into the Dispenser.
- Connect the quick-connect fitting (JG connector) to the DVX pump.
- Connect the power harness to the Rembrandt PCB.
- Turn on and re-initialize the dispenser.
- Pour reserved colorant back into canister.
- Go into IDEX Dispenser Service.
- Set Can Node ID by using the following tool: FM CANOpen Service Tool (Set ID Command) or NFC Application (ST25 or Tomasz Application)

**Note:** If using the NFC Application, you can assign the Node ID when the canister is out of the dispenser. It does not need to be connected to the power source.

- Disconnect the FM CANOpen Service Tool or NFC Application.
- Power cycle the machine to load the new Node ID.
- Perform a 5 oz. manual dispense to check for leaking and to remove air from lines.
- Attach access panel to unit.
- Perform a 1 oz. dispense to check calibration.
  - **Note:** If calibration is not within threshold upper and lower limit or want to calibrate new pump please refer to Dispense Calibration Replacement Instructions.



# **REMBRANDT PUMP BOARD**

ASX500 Rembrandt board is part of the pump assembly and **NOT** a replaceable part.



# **LED CAN LOCATOR PCB KIT**

The following two procedures cover the removal and replacement of the ASX500 LED PCB KIT.

### LED Can Locator PCB Removal





LED Can locator PCB KIT – Part Number 39035

- Access IDEX Dispenser Service and verify failure.
- Disconnect power.
- To access the Locator LED PCB assembly, remove the front and back nozzle covers.
- Remove the LED harness.



• Remove the 4 screws holding to DPI fan.



• Remove the bottom screws holding the DPI to the nozzle weldment.





• Lift up on nozzle block to gain access to the LED assembly. Note: The colorants might drip or leak from the tubing while lifting the nozzle assembly



• Remove the first 3 screws holding the top LED shroud. While removing the last screw hold the bottom where the LED lens is located.



• Remove the LED lens and gasket.





• Remove and discard the faulty LED Can Locator PCB.

### LED Can Locator PCB Kit Replacement

- Install new LED Can Locator PCB
- Use a screwdriver to install LED shroud to nozzle weldment and tighten the screws.
- Reinstall DPI and nozzle block assembly and tighten the screws.
- Position fan and tightens the screws.
- Connect the LED harness to LED PCB.
- Connect power and verify that the LED PCB is functional.
- Install front and back nozzle covers.

# **NOZZLE CLOSER OPTO SENSOR**

The following two procedures cover the removal and replacement of the ASX500 Nozzle closer OPTO sensor.



OPTO Sensor PCB Board – Part Number 38091


#### **OPTO Sensor(s) PCB Removal**

- Access IDEX Dispenser Service and verify failure.
- Disconnect power.
- Remove the front and back nozzle covers.
- Remove the Opto sensor harnesses.
- Remove screw and nut holding the Opto sensor mounting bracket.





#### **Opto Sensor(s) PCB Replacement**

- Insert new Opto sensors, if one sensor is bad you must replace both sensors.
- Use a 2.5 Allen key to install and tighten the screws.
- Use a screwdriver to install Opto sensor brackets to nozzle weldment and tighten the screws.
- Connect the Opto sensor harnesses to Opto sensors.
- Connect power and verify that the Opto sensor PCBs are functional by opening and closing the nozzle closer.
- Install front and back nozzle covers.



# **DPI REPLACEMENT**





DPI Kit – Part Number AS7500 – 39020 & AS9500 - 39049

- Access IDEX Dispenser Service and verify the failure.
- Disconnect power to the dispenser.
- To access the DPI Assembly, remove top plastic cover.
- Disconnect DPI harness from the Michelangelo PCB.
- Disconnect the fan harness from the Michelangelo PCB.
- Disconnect the DPI Probe harness from the Michelangelo PCB.
- Remove the fan from the weldment bracket by removing the 4 screws.
- Remove the DPI assembly from the weldment bracket by removing the screws.
- To access the John Guest fittings, remove the bracket the Michelangelo PCB sits on and set it to the side.
- Disconnect the John Guest fittings coming from the pump tubing to the nozzle block formed tubing.
- **Note**: Place a cover under the John Guest fittings prior to disconnecting to prevent colorant drippage on machine.
- Remove the faulty DPI assembly by lifting it up and out of the weldment bracket.
- Install new DPI assembly, connect all John Guest fittings from the pump tubing to the new nozzle block formed tubing.
- Place the Michelangelo PCB bracket back on and secure it back on the weldment.
- Secure the DPI assembly to the weldment bracket with the screws.
- Secure the fan back on the weldment bracket with the 4 screws.
- **Note**: Make sure to insert the fan spacer in the right place before securing onto the weldment bracket.
- Connect the DPI Probe harness to the Michelangelo PCB.
- Connect the fan harness to the Michelangelo PCB.
- Connect the DPI harness to the Michelangelo PCB.
- Turn on the machine or plug in the power cord to the machine to power on.
- Test and verify the DPI assembly is working properly in IDEX Dispenser Service.
- Place the top center plastic cover back on.



• DPI assembly replacement is complete.

# **NOZZLE CLOSER LEAD SCREW AND COUPLER**

The following two procedures cover the removal and replacement of the ASX500 nozzle closer lead screw and coupler.



Lead screw and coupler, part# 37077

#### Lead screw and coupler Removal

- Remove the front and back nozzle covers.
- Loosen the all four coupler screws by using a 3/32<sup>nd</sup> Allen key.



• Remove lead screw and coupler from the upper slide guide.

#### Lead screw and coupler Replacement

• Insert new lead screw and coupler into the upper slide guide.



• Add a drop of Loctite to the two middle set screws.



• Use a 3/32<sup>nd</sup> allen key to install and tighten the screws. Tightens the screws in the following order shown below.



- Verify that the lead screw and coupler is functional by opening and closing the nozzle closer.
- Install front and back nozzle covers.



# **ERROR CODES**

Error Code	Description	Customer Impact	Service Resolution	Error Text
9100	Coordinator failed to load list of faults from resource file.	Fault text will not be available.	Reinstall dispenser firmware.	Failed to load faults from File Name: Exception Message
9101	Coordinator failed to parse list of faults from resource file.	Fault text will not be available.	Reinstall dispenser firmware.	Failed to parse faults from File Name: Exception Message
9102	Coordinator failed to map list of faults from resource file to internal data structures.	Fault text will not be available.	Reinstall dispenser firmware.	Failed to map faults from File Name: Exception Message
9103	Unexpected event for the state of the Coordinator.	No action will be taken.	None.	Invalid event <i>Event ID</i> in state <i>State ID</i> from node id <i>CANOpen Node ID</i>
9104	Unexpected agitation stop while in a suspended state.	Agitation will be stopped.	None.	Agitation stop event in SUSPENDED state for Canister Canister ID
9105	Unexpected agitation start when in a stopped state.	Agitation will be stopped.	None.	Agitation start event in STOPPED state for Canister Canister ID
9106	Unexpected agitation start while in a suspended state.	Agitation will be stopped.	None.	Agitation start event in SUSPENDED state for Canister <i>Canister ID</i>
9107	Unexpected agitation start	None.	None.	Agitation start without request for Canister <i>Canister</i>
9108	Unknown device responding to coordinator	None.	Verify dispenser configuration corresponds to the number of physically installed devices. Fix and reboot.	Unconfigured device id <i>CANOpen Node ID</i> notifying of event <i>Event ID</i>
9110	Unexpected initialization response from device	None.	None.	Unexpected initialization response from node id <i>CANOpen Node ID</i>



9111	Low ingredient level.	No impact on the job, future jobs may fail when level drops below minimum.	Add ingredient to the specified canister.	Ingredient level dropped below a warning level in canister with id: <i>Reason</i>
9112	Command in progress cleared due to device reset			Command in progress Command Name cleared due to device reset (Node Id = CANOpen Node ID)
9113	Command waiting for response cleared due to device reset			Command waiting for response <i>Command Name</i> cleared due to device reset (Node Id = <i>CANOpen Node ID</i> )
9500	In a CAN Open command, the specified command is unknown	Command not executed	N/A	In a CAN Open command, the specified command is unknown - <i>Device Type Device</i> <i>ID</i> (NodeID <i>CANOpen Node</i> <i>ID</i> )
9501	Specified Node ID id invalid	Node ID was not changed	N/A	Specified Node ID id invalid - for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
9502	In a CAN Open command, the device argument is missing or the specified device is unknown .	Command not executed	N/A	The device is missing or specified device is unknown - for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
9503	Cannot change the ID of a node with a valid ID	Node ID not changed	N/A	Cannot change the ID of a node with a valid ID - for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
9504	The Pump must be initialized before it can be used for dispensing.		N/A	The Pump in <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> ) has not been initialized



9505	The pump is busy executing a command.	<ol> <li>Wait for the pump to complete the current command.</li> <li>OR</li> <li>Abort the current command and retry the new command.</li> </ol>	The pump in <i>Device Type Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> ) is busy
9506	The pump is blocked by another task.	<ol> <li>Wait for the other task to complete it's command.</li> <li>OR</li> <li>Abort the other task job.</li> </ol>	The pump in <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> ) is blocked by another task
9507	The Nozzle Closer has not been initialized	N/A	Nozzle Not Initialized for Device Type Device ID (NodeID CANOpen Node ID)
9508	The specified diagnostic is not supported	N/A	The specified diagnostic is not supported for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
9509	The Nozzle Closer Diagnostic was aborted	N/A	The Diagnostic was aborted for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
9510	The Nozzle-Closer is Busy with another job for %s %s (NodeID %s)	N/A	***Error Not enough % for parameters ***



9511	The specified device is not unlocked for protected commands		N/A	The specified device <i>Device</i> <i>Type</i> is not unlocked for protected commands (for NodeID <i>Device ID</i> ***Error Not enough % for parameters ***
9512	The specified device has been unlocked for protected commands		N/A	The specified device <i>Device</i> <i>Type</i> has been unlocked for protected commands (for NodeID <i>Device ID</i> ***Error Not enough % for parameters ***
9700	The Agitator must be initialized before it can be used.		N/A	The Agitator in <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> ) has not been initialized
9701	The Agitator has run longer than allowed.		N/A	The Agitator in <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> ) has run longer than allowed
9800	The pump Zero position has been cleared. Turn off the Rembrandt now.		Turn off the Rembrandt now	The pump Zero position has been cleared. Turn off <i>Device</i> <i>Type Device ID</i> (NodeID <i>CANOpen Node ID</i> ) now.
9850	The DPI Operation has been shut off by the Master	LD_DPI may operate correctly. DPI Function may fail.	N/A	The DPI Operation has been shut off by the Master on <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
9851	The DPI Operation has been shut off by the LD_DPI Task	LD_DPI may operate correctly. DPI Function may fail.	N/A	The DPI Operation has been shut off by the LD_DPI Task on <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
1009	Configured device is unresponsive	Depends on which device does not respond	Check the device and its connections and reboot	Configured device <i>Device</i> <i>Type Device ID</i> is unresponsive



1010	Invalid fluid sense conversion factor	Level sense does not work properly for the specified canister and will render the canister out of order	Check level sensor for the specified canister or disable level sense	Canister <i>Canister ID</i> has an invalid fluid sense conversion factor <i>Pressure Conversion</i> <i>Factor Value</i>
1011	Dispenser initialization failed because all nozzles failed to initialize	Dispenser main functionalit y disabled.	Check for other error conditions to find the root cause.	Dispenser initialization failed because all nozzles failed to initialize
1012	Dispenser initialization failed because all canisters failed to initialize	Dispenser main functionalit y disabled.	Check for other error conditions to find the root cause.	Dispenser initialization failed because all canisters failed to initialize
1013	Requested operation was rejected because the dispenser is busy on a different operation	The attempted command fails.	Retry the command when the dispenser is not busy. If the dispenser is stuck in a busy state, reset.	Event <i>Event ID</i> caused by requested command is invalid in state <i>State ID</i> (busy)
1014	Invalid pressure value	Level sense does not work properly for the specified canister and will render the canister out of order	Check level sensor for the specified canister or disable level sense	Pressure sensor reading for <i>Device Type Device ID</i> is not a numeric value: <i>Raw Pressure</i> <i>Value</i>
1015	Invalid canister id found in agitation start request	The attempted command fails.	User needs to fix the request and try again.	Invalid canister id in <i>Command Name</i> command: <i>Canister ID</i>
1016	Command requested by the user is not supported by this dispenser model	The attempted	User needs to fix the	Unsupported command: Command Name



		command fails.	request and try again.	
1017	Coordinator failed to load its configuration file.	Dispenser is not operational.	Update dispenser configuration	Failed to load configuration from <i>File Name</i> : <i>Exception Message</i>
1018	Coordinator failed to parse list of faults from resource file.	Dispenser is not operational.	Update dispenser configuration	Failed to parse configuration from <i>File Name</i> : <i>Exception Message</i>
1019	Coordinator failed to map configuration from resource file to internal data structures.	Dispenser is not operational.	Update dispenser configuration	Failed to map configuration from <i>File Name</i> : <i>Exception Message</i>
1020	Key element "dispenser" is missing from the configuration file.	Dispenser is not operational.	Update dispenser configuration	Key element "dispenser" is missing from the configuration file <i>File Name</i>
1021	Key element "canisters" is missing from the configuration file.	Dispenser is not operational.	Update dispenser configuration	Key element "canisters" is missing from the configuration file <i>File Name</i>
1022	Unknown device parameter.	The attempted command fails.	Check device node id and parameter name.	Unknown parameter <i>Parameter Name</i> on device with device id <i>Device ID</i> during <i>Function Name</i>
1023	Canister pressure is below atmospheric pressure	Level sense does not work properly for the specified canister or for entire dispenser. This will render the canister or entire dispenser out of order.	Check both level sensor for the specified canister and for atmospheric pressure or disable level sense	Canister <i>Canister ID</i> has pressure of <i>Canister Pressure</i> <i>Value</i> which is below atmospheric pressure of <i>Atmospheric Pressure Value</i>



1024	Missing ingredient during dispense.	The attempted command fails.	Check the dispense job and levels of ingredients in canisters.	Missing ingredient during dispense: <i>Reason</i>
1025	Insufficient ingredient during dispense or purge.	The attempted command fails.	Check the dispense job, configured purge amount, and levels of ingredients in canisters.	Insufficient ingredient during dispense or purge: <i>Reason</i>
1026	Unknown canister to purge.	The attempted command is not performed.	Check the purge job.	Purge requested for an unknown canister id: <i>Reason</i>
1027	Canister specified for purge is disabled.	The attempted command is not performed.	Check the purge job and the disabled canister.	Purge requested for a disabled canister id: <i>Reason</i>
1028	Unrecognized device	The attempted command fails	Check device id and retry	Unrecognized device with id Device ID
1029	Invalid atmospheric pressure reading	Level sense does not work properly and will have to be disabled until fixed	Check atmospheric pressure sensor or disable level sense	Invalid atmospheric pressure reading: <i>Atmospheric</i> <i>Pressure Value</i>
1039	Coordinator failed to load UIDDS configuration file.	FM Service not operational.	Update dispenser configuration	Failed to load UIDDS objects from <i>File Name</i> : <i>Exception Message</i>
1040	Coordinator failed to parse UIDDS configuration file.	FM Service not operational.	Update dispenser configuration	Failed to parse UIDDS objects from <i>File Name</i> : <i>Exception Message</i>



1041	Coordinator failed to map configuration from UIDDS configuration file to internal data structures.	FM Service not operational.	Update dispenser configuration	Failed to map UIDDS objects from <i>File Name: Exception Message</i>
1042	Coordinator failed to load its canister levels file.	Dispenser is not operational.	Update dispenser configuration	Failed to load levels from File Name: Exception Message
1043	Coordinator failed to parse canister levels from resource file.	Dispenser is not operational.	Update dispenser configuration	Failed to parse canister levels from <i>File Name</i> : <i>Exception Message</i>
1044	Coordinator failed to map configuration from canister levels file to internal data structures.	Dispenser is not operational.	Update dispenser configuration	Failed to map canister levels from <i>File Name: Exception</i> <i>Message</i>
1045	Canisters weren't loaded from the configuration file.	Dispenser is not operational.	Update dispenser configuration	***Error Not enough % for parameters ***
1050	Disabled device	The attempted command fails	Enable the device and retry	Disabled device with id <i>Device</i> <i>ID</i>
1079	Invalid canister pressure reading	Level sense does not work properly and will have to be disabled until fixed	Check canister pressure sensor or disable level sense	Invalid pressure reading for canister <i>Canister ID</i> : <i>Pressure</i> <i>Value</i>
3000	The SPI bus cannot communicate with the stepper chips	Board cannot drive the stepper motors	N/A	The SPI bus cannot communicate with the stepper chips for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
3001	The Discrete I/O HW logic on the Nozzle-Closer board returned an error		N/A	Discrete I/O HW returned an error for <i>Device Type Device</i> ID (NodeID CANOpen Node ID)



3002	One or more devices has failed the SELFTEST	N/A	One or more devices has failed the SELFTEST for <i>Device</i> <i>Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
3003	The Pressure subsystem cannot use the I2C bus	N/A	The Pressure subsystem cannot use the I2C bus for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
3004	I2C Port did not become ready to read/write or BUS is busy	N/A	I2C Port did not become ready to read/write or BUS is busy for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
3005	I2C is missing a slave device or slave not ACKing	N/A	I2C is missing a slave device or slave not ACKing for <i>Device</i> <i>Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
3006	I2C BUS appears to be unstable or possible I2C device electrical problems	N/A	I2C BUS appears to be unstable or possible I2C device electrical problems for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
3007	An internal failure has occurred on I2C operation	N/A	An internal failure has occurred on I2C operation for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
3008	An Executive Service initialization returned a failure code	N/A	An Executive Service initialization returned a failure code for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
3009	An Executive Task initialization returned a failure code	N/A	An Executive Task initialization returned a failure code for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )



3010	An Executive Task Start function returned a failure code	N/A	An Executive Task Start function returned a failure code for <i>Device Type Device</i> <i>ID</i> (NodeID <i>CANOpen Node</i> <i>ID</i> )
3011	FM_SER_TIMER could not start the MPU timer	N/A	FM_SER_TIMER could not start the MPU timer for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
3012	FM_SER_FILE FAT SWPART not supported	N/A	FM_SER_FILE FAT SWPART not supported for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
3013	FM_SER_FILE Max number of files exceeded	N/A	FM_SER_FILE Max number of files exceeded for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
3014	FM_SER_FILE failed device read (I2C)	N/A	FM_SER_FILE failed device read (I2C) for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
3015	FM_SER_FILE FAT version not supported	N/A	FM_SER_FILE FAT version not supported for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
3016	FM_SER_FILE driver creation failed	N/A	FM_SER_FILE driver creation failed for <i>Device Type Device</i> <i>ID</i> (NodeID <i>CANOpen Node</i> <i>ID</i> )
3017	FM_HAL_PRESSURE pressure chip unavailable	N/A	FM_HAL_PRESSURE pressure chip unavailable for <i>Device</i> <i>Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
3018	FM_HAL_PRESSURE failed device read (I2C)	N/A	FM_HAL_PRESSURE failed device read (I2C) for <i>Device</i> <i>Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )



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3019	Subscriptions_file_unavailabl e		N/A	Subscriptions_file_unavailabl e for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
3020	The fetching of RED BUTTON status failed		N/A	The fetching of RED BUTTON status failed for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
3021	An invalid command from LD_NOZZLE has been received		N/A	An invalid command from LD_NOZZLE has been received for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
3022	A fault has been detected during SELT-TEST		N/A	A fault has been detected during SELT-TEST for <i>Device</i> <i>Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
3023	An internal error has occurred (EXE_MESSAGE Failure)		N/A	An internal error has occurred (EXE_MESSAGE Failure) for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
3024	An Invalid Handle has been encountered		N/A	An Invalid Handle has been encountered for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
3025	Internal Error. Could NOT start the LD_BOARD Timer	LD_BOARD may operate incorrectly. LD_BOARD Function may fail.	N/A	Error: Could NOT start the LD_BOARD Timer for <i>Device</i> <i>Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
3026	LD_BOARD Error: A Problem with the file system has been encountered	LD_BOARD may operate incorrectly. LD_BOARD Function may fail.	N/A	LD_BOARD Error: A Problem with the file system has been encountered for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )



3501	A stall was detected by the AGITATOR	Colorant may solidify	N/A	Agitation stalled for Device Type Device ID (NodeID CANOpen Node ID)
3503	The Agitator did not startup correctly, is in an Error state and cannot run.		N/A	The Agitator has a problem with the File Subsystem, is in an Error state and cannot run for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
3504	The Agitator is in an unrecoverable error state and cannot be run.		<ol> <li>Re- initialize the pump.</li> <li>OR</li> <li>Call service to re-allign the board to the pump.</li> </ol>	The Agitator in <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> ) is in an unrecoverable error state and cannot be run
3505	The Agitator stepper has no drive voltage.		N/A	The Agitator stepper has no drive voltage for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
3506	The Agitator stepper has returned a General Stepper Alarm.		N/A	General Stepper Alarm for Agitator for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
3507	The Agitator has exceeded the number of consecutive failures allowed	This canister will not attempt to agitate until the problem is isolated and fixed.	N/A	The Agitator has exceeded the number of consecutive failures allowed for <i>Device</i> <i>Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
4000	LD_NOZZLE Message allocation or posting error	n/a	N/A	LD_NOZZLE Message allocation or posting error for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
4001	The nozzle sensor reading is NOT correct, which means the operation was NOT successful		N/A	The nozzle Open Sensor is not Blocked for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )



4002	The Nozzle Closer failed movement or a stall was detected.		N/A	Failure on Movement of Nozzle Closer or Stall Detected for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
4003	A DAC Failure was encountered in Nozzle Closer's STEPPER.		N/A	A DAC Error was encountered in Nozzle Closer's STEPPER for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
4004	A Nozzle-Closer Internal Error occurred; Invalid Handle	e-Closer Internal Error d; Invalid Handle		Nozzle-Closer Internal Error for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
4005	Nozzle Closer Internal Error Occurred		N/A	Nozzle Closer Internal Error Occurred for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
4006	Nozzle is having a problem with HAL_STEPPER		N/A	Nozzle Closer Nozzle is having a problem with HAL_STEPPER for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
4007	Nozzle is having a problem with HAL_STEPPER		N/A	Nozzle Closer Nozzle is having a problem with HAL_STEPPER for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
4008	The Discrete I/O subsystem returned an error.	n/a	N/A	Nozzle Closer Nozzle is having a problem with the Discrete I/O subsystem for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
4009	The SER_FILE subsystem returned an error.	n/a	N/A	Nozzle Closer is having a problem with the SER_FILE subsystem for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )



4010	Nozzle Closer failed to close (did not cover the 'Close' sensor)	n/a	N/A	Nozzle Closer failed to close (did not cover the 'Close' sensor) for <i>Device Type Device</i> <i>ID</i> (NodeID <i>CANOpen Node</i> <i>ID</i> )
4011	The specified diagnostic is not supported for Nozzle Closer	n/a	N/A	The specified diagnostic is not supported for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
4012	Nozzle Closer'Open' and 'Closed' sensors are blocked at the same time	n/a	N/A	Nozzle Closer'Open' and 'Closed' sensors are blocked at the same time for <i>Device</i> <i>Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
4013	Nozzle stalled at 'Closed' position (try cleaning and manually free the nozzle)	n/a	N/A	Nozzle stalled at 'Closed' position (try cleaning and manually free the nozzle) for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
4015	The SER_TIMER subsystem returned an error.	n/a	N/A	Nozzle Closer is having a problem with the SER_TIMER subsystem for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
4016	The Nozzle Closer stepper has no drive voltage.		N/A	The Nozzle Closer stepper has no drive voltage for <i>Device</i> <i>Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
4017	A Finding Edge Action Failed to find the Sensor Edge		N/A	A Finding Edge Action Failed to find the Sensor Edge for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
4018	An error encountered on the SPI BUS during STEPPER communications		N/A	An error encountered on the SPI BUS during STEPPER communications for <i>Device</i> <i>Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )



4501	A stall was detected by the PUMP	N/A	A stall was detected by the PUMP in <i>Device Type Device</i> <i>ID</i> (NodeID <i>CANOpen Node</i> <i>ID</i> )
4502	Pump movement does not match steps performed	N/A	Pump movement does not match steps performed in <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
4503	The Pump has a problem with the File Subsystem.	N/A	The Pump in <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> ) has a problem with the File Subsystem, is in an Error state and cannot run.
4504	The Position sensor is out of alignment and could not be read. The pump is in an error state and cannot be run.	<ol> <li>Re- initialize the pump.</li> <li>OR</li> <li>Call service to re-allign the board to the pump.</li> </ol>	The Pump Position sensor is out of alignment for <i>Device</i> <i>Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
4505	The position sensor does not have a valid zero position value and therefore cannot be read. The pump is in an error state and cannot be run.	1. Service - Re-position (re-align) the board to the motor shaft and re-power the board.	The Pump in <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> ) has an invalid or uninitialized zero position value
4506	The pump is in an unrecoverable error state and cannot be run.	<ol> <li>Re- initialize the pump.</li> <li>OR</li> <li>Call service to re-allign the board to the pump.</li> </ol>	The pump in <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> ) is in an unrecoverable error state and cannot be run



4509	The pump stepper has returned a General Stepper Alarm.		N/A	General Stepper Alarm for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
4510	The pump stepper has no drive voltage.		N/A	The pump stepper has no drive voltage for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
4511	The pump stepper stalled because of an Overcurrent event.		N/A	Stepper Overcurrent stall for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
4512	The pump stepper stalled because of undervoltage lockout.		N/A	Stepper undervoltage lockout stall for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
4513	The pump stepper stalled because of a high temperature event.		N/A	Stepper high temperature event (stall) for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
4514	The pump was not at the expected position at the end of a dispense.		N/A	The pump was not at the expected position at the end of a dispense for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
4515	The pump cannot dispense zero mL.		N/A	The pump cannot dispense zero mL for <i>Device Type Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
5001	LD_DPI encountered an internal error ("Invalid Handle")	LD_DPI may operate incorrectly or not at all. DPI Function may fail.	N/A	LD_DPI encountered an internal error ("Invalid Handle") for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )



5002	LD_DPI encountered an error in its attempted Discrete I/O Operation.	LD_DPI may operate incorrectly or not at all. DPI Function may fail.	N/A	LD_DPI encountered an error in its attempted Discrete I/O Operation for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
5003	LD_DPI encountered an internal error; Unexpected NULL pointer	LD_DPI may operate incorrectly or not at all. DPI Function may fail.	N/A	LD_DPI encountered an internal error; Unexpected NULL pointer for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
5004	The specified DPI property is not supported	LD_DPI may operate incorrectly. DPI Function may fail.	N/A	The specified DPI property is not supported for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
5005	LD_DPI's attempted fetch of the Temperature and Relative Humidity readings failed	LD_DPI may operate incorrectly. DPI Function may fail.	N/A	LD_DPI's attempted fetch of the Temperature and Relative Humidity readings failed for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
5006	LD_DPI's attempted fetch of the Ambient Temperature failed	LD_DPI may operate incorrectly. DPI Function may fail.	N/A	LD_DPI's attempted fetch of the Ambient Temperature failed for <i>Device Type Device</i> <i>ID</i> (NodeID <i>CANOpen Node</i> <i>ID</i> )
5007	LD_DPI's attempted fetch of the readings from the Temperature Probe failed	LD_DPI may operate incorrectly. DPI Function may fail.	N/A	LD_DPI's attempted fetch of the readings from the Temperature Probe failed for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
5008	LD_DPI's attempted fetch of the Relative Humidity failed	LD_DPI may operate incorrectly. DPI Function may fail.	N/A	LD_DPI's attempted fetch of the Relative Humidity failed for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )



5009	The LD_DPI has detected a failure in operation of the DPI FAN, DPI is shutting down	There is risk to the health of the TEC Cooling Module. Module may run too hot.	N/A	For DPI, the TEC's FAN has malfuctioned or performance is degraded. FAN may need to be replaced for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
5010	For DPI, the CRC returned upon fetch of the Temperature and Relative Humidity failed its check	LD_DPI may operate incorrectly. DPI Function may fail.	N/A	For DPI, the CRC returned upon fetch of the Temperature and Relative Humidity failed its check for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
5011	LD_DPI Internal Error: Could NOT send an Executive Message	LD_DPI may operate incorrectly. DPI Function may fail.	N/A	LD_DPI Internal Error: Could NOT send an Executive Message for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
5012	LD_DPI Internal Error: Could NOT start the DPI Timer	LD_DPI may operate incorrectly. DPI Function may fail.	N/A	LD_DPI Error: Could NOT start the DPI Timer for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
5013	LD_DPI Internal Error: I2C BUS In USE or unavailable	LD_DPI may operate incorrectly. DPI Function may fail.	N/A	LD_DPI Internal Error: I2C BUS In USE or unavailable for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
5014	LD_DPI Internal Error: Invalid State Encountered	LD_DPI may operate correctly. DPI Function may fail.	N/A	LD_DPI Internal Error: Invalid State Encountered for <i>Device</i> <i>Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
5015	LD_DPI Error: A Problem with the file system has been encountered	LD_DPI may operate correctly. DPI Function may fail.	N/A	LD_DPI Error: A Problem with the file system has been encountered for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )



5016	LD_DPI Error: A Problem with the I2C_BUS has been encountered	LD_DPI may operate incorrectly. DPI Function may fail.	N/A	LD_DPI Error: A Problem with the I2C_BUS has been encountered for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
5017	LD_DPI Error: An Internal Error Occurred	LD_DPI may operate incorrectly. DPI Function may fail.	N/A	LD_DPI Error: An Internal Error Occurred for <i>Device</i> <i>Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )
5018	The DPI could not reach the target temperature at startup or after enabled	LD_DPI cooling of the Nozzle block and colorant may not be ideal.	N/A	DPI could not reach the target temperature at startup or after enabled for <i>Device Type</i> <i>Device ID</i> (NodeID <i>CANOpen</i> <i>Node ID</i> )
5019	The DPI could not recover to the target temperature after falling outside tolerance	LD_DPI cooling of the Nozzle block and colorant may not be ideal.	N/A	The DPI could not recover to the target temperature after falling outside tolerance for <i>Device Type Device ID</i> (NodeID <i>CANOpen Node ID</i> )



# **ASX500 SOFTWARE**



Welcome to!





#### Logging into IDEX Dispenser Service

IDEX Dispenser Service is Web App based system. The service program is stored in the SOM of the dispenser. The IP address of the dispenser is needed to access IDEX Dispenser Service

E ← Idex Dispenser Service × + ∨
← → ♡ ŵ ③ 192.168.1.100:8080/fmservice

A username and password are required to access the program. This information is setup by the FMDA installing the dispenser.Example: Username: admin; Password: password123



#### **Dispenser Parameters**

Dispenser parameters are displayed on the left while the commands are displayed on the right



→ () ∩ 192.	168.1.100:8080/fmservice/dashboard		11 🛨 📩 🖉 🖻
	Dispenser	e abort 5	RESET E LOGOUT
ENSER SERVICE	Dispenser		
ged In As: admin	Darameters	Commands	
	Parameters	Commands	
spenser		1 Initialize	0
<b>C</b> -11-	1		Ŧ
Faults			0
Colorants		Agitate All	
Capistors	State	-	
Callisters		Agitate Selected Canisters	0
Nozzle Closer	Ψ	0	
ופח	Serial Number	Purge All	0
bh			<b>v</b>
Dispense Job		0	
	Model	Purge Selected Canisters	0

From the Dispenser node: Functions like the machine ID, Config SW Part Number, Max Concurrent Agitators and Max Simultaneous Dispenses can be set and updated.

Dispenser date and time is always set to UTC: Coordinated Universal Time

DISPENSER SERVICE	UIDD Version 1.0.70	0	
Dispenser	Config SW Part Number SW2805	0	
Faults Colorants	Dispenser Date 2020-05-14T21:43:18.272Z	0	



#### **Dispenser Commands**

• Select Initialize from Command and EXECUTE to begin dispenser initialization. A status bar indicates the function selected in progress.

DISPENSER SERVICE	Dispenser 👌 ABORT 💍 RESET 🕞 LOGOU	л
admin	Parameters	
Dispenser 🔺	Executing Command (Initialize) in Dispenser	
Faults	1 Status: In Progress	
Colorants	0%	
Canisters 🔻	State INITIALIZED	
Nozzle Closer 🔹	RESET O ABORT	
DPI	Serial Number Agrate Selected Canisters	
Dispense Job	Purge All	
	Model	
	Copyright 2018 IDEX   All Rights Reserved.	

Once the dispenser is initialized all other commands become available

5			and a second and a second and a second			
L	EEX		Dispenser Dispenser		🖑 ABORT	ට RESET
Lo	gged In As: admin			Executing Command (Initialize) in Di	spenser	
				Status: completed		
D	ispenser	•	100%			
	Faults			🖆 Command has been successfully ex	ecuted.	EXECUTE
	Colorants				CLOSE	
	Canisters	्रण	INITIALIZED	-	Agnate Att	
	Nozzle Closer		Casial Number	0	Agitate Selected Canister	's
	DPI		11AS7500219			

Agitation of all or individual canisters is available. To agitate all canisters, select Agitate ALL, then Execute.



#### Fluid Management

DISPENSER SERVICE	<b>Dispenser</b> Dispenser	Abort S reset E Logout
admin	Parameters	Commands
Dispenser 🔺	Executing Command (Agitate All) in I	Dispenser
Faults	Status: In Progress	
Colorants	0%	0
Canisters 🔹	State INITIALIZED	EXECUTE
Nozzle Closer 🔻	RESET	ABORT
DPI	Serial Number 12345678904	Agriate pelected Canisters
Dispense Job		Purge All
	Model	· · · · · · · · · · · · · · · · · · ·
	Copyright 2018 IDEX   All Rights Re	served.

#### After completion of task complete status displayed

DISPENSER SERVICE	Dispenser 🕘 ABORT 🔊 R	ESET 🕞 LOGOUT
admin	Parameters	
Dispenser	Executing Command (Agitate All) in Dispenser	0 1
Faults	ID Status: Complete	<b>v</b>
Colorants		0
Canisters 🔻	State I Command has been successfully executed.	EXECUTE
Nozzle Closer 🔹		
DPI	Serial Number Lected Canisters	O T
Dispense Job	Durse All	0
	Model	v
	Copyright 2018 IDEX   All Rights Reserved.	

To agitate individual canisters, select the canister to be agitated and then Execute.



#### Fluid Management

DISPENSER SERVICE	Parameters	Commands	
admin	ID	0	
Dispenser 🔺	1	Executing Command (Agitate Selected Canisters) in Dispenser	
Faults	State	Status: In Progress	
Colorants		% 0	
Canisters 🔺	Serial Number	· · · · · · · · · · · · · · · · · · ·	
Canister 1 - AX 🛛 🔻	12345678904	RESET ABORT acted Canisters	
Canister 2 - BXL 🔻			
Canister 3 - CX 🔍	Model	Smart Durno	
Canister 4 - AX 🔻			
Canister 5 - DXL 🔻		Copyright 2018 IDEX   All Rights Reserved.	

Click close once the agitation is complete

DISPENSER SERVICE	Parameters	Cor	mmands	
admin	ID		-	
Dispenser	1 Executin	g Command (Agitate Selected Canisters) in Dispenser	ist AX	_ 0
Faults	State	Status: Complete		EXECUTE
Colorants	INITIALIZED 100%			0
Canisters 🔺	Ia C	ommand has been successfully executed.		Ţ.
Canister 1 - AX 🔍	12345678904	CI OCE	cted Canisters	0
Canister 2 - BXL 🔻		LLUSE		Ť
Canister 3 - CX 🔻	Model	Smart	Durge	A
Canister 4 - AX 🔍				
Canister 5 - DXL 🔻	Сор	vright 2018 IDEX   All Rights Reserved.		

All canisters on individual canisters can be purged. Select Purge All or Select the individual canister to be purged and Execute to begin purging



DISPENSER SERVICE	<b>Dispenser</b> Dispenser		ABORT 🔿 RESET	
admin	Parameters		Commands	
Dispenser 🔺	ID 1	0	Agitate Selected Canisters	0 v
Colorants Canisters 💌	State INITIALIZED	0	Purge All	0
Nozzle Closer   DPI	Serial Number 12345678904	0	EXE Purge Selected Canisters	
Dispense Job	Model	0	Smart Purge	0
	Copyright 2018	BIDEX   All Rights Reserved.		

Progress status will appear during the purge of all colorants

DISPENSER SERVICE	<b>Dispenser</b> Dispenser		ABORT S RESET E	+ LOGOUT
admin	Parameters	Commands		
Dispenser 🔺	Executing Command (Pu Executing Command (Pu Status: In P	rge All) in Dispenser lected	Canisters	() •
Colorants Canisters T Nozzle Closer T	State INITIALIZED	RESET O ABORT	EXECUTE	0
DPI 🔹	Serial Number 12345678904	Purge Selected C	anisters	0 v
	Model Copyright 2018 IDEX   A	<b>1</b> Smart Purge		0

Completed status displayed upon completion of the purge command



#### Fluid Management

DISPENSER SERVICE	<b>Dispenser</b> Dispenser	👌 ABORT 💍 RESET 🕞 L	OGOUT
admin	Parameters	nds	
Dispenser	Executing Command (Purge All) in Dispenser		
Faults	1D Status: Complete	ected Canisters	2
Colorants	100%		. 1
Canisters 🔻	State Command has been successfully executed.	EVECUTE	
Nozzle Closer 🔻	CLOSE		
DPI	Serial Number 12345678904	ted Canisters	
Dispense Job			
	Model Smart Purg	e	
	Copyright 2018 IDEX   All Rights Reserved.		

Smart Purge is used to purge only the specific canisters that have not been dispensed and need purging

DISPENSER SERVICE	Parameters	0	Commands	
Dispenser 🔺	1		Purge All	0 v
Faults	State INITIALIZED	0	Purge Selected Canisters	<b>ē</b>
Canisters V	Serial Number	0	Smart Purge	0
Nozzle Closer 🔻	12345678904		l	EXECUTE
Dispense Job	Model	0		1
	Сор	yright 2018 IDEX   All Rights Reserved	d. 	

Select Smart Purge then EXECUTE. Progress status will appear during the smart purge the colorants



DI	SPENSER SERVICE		Parameters	Commands		
ad	dmin		ID 1	•	•	
ſ	Dispenser	<b>_</b>		Executing Command (Smart Purge) in Dispenser	0 v	
	Faults Colorants		State INITIALIZED	Status: In Progress	0 V	
	Canisters Nozzle Closer	▼ ▼	Serial Number 12345678904	RESET ABORT	0	
	DPI Dispense Job	•	Model	0	EXECUTE	
				Copyright 2018 IDEX   All Rights Reserved.		

Completed status displayed upon completion of Smart Purge

DISPENSER SERVICE		Parameters	Co	ommands	
admin		ID -	0		
Dispenser		1 Executi	ng Command (Smart Purge) in Dispenser		0
Sispenser			Status: Complete		•
Faults		State INITIALIZED 100%		ected Canisters	0
Colorants					<b>v</b>
Canisters	T	Serial Number	ommand has been successfully executed.	ge	0
Nozzle Closer	T	12345678904	CLOSE	-	- A
DPI	v				EXECUTE
Dispense Job		Model	0		l I
		Сор	yright 2018 IDEX   All Rights Reserved.		

#### Faults

Problems on unit will be displayed here. This is an example of a nozzle error





#### **Colorants Menu**

Colorant Name, Density, RGB values cane be set from this menu

🖻 🖅 🗄 Idex Dispenser Service 🗙 🕂 🗸	E I Idex Dispenser Service × + ∨				×
$\leftrightarrow$ $\rightarrow$ $\circlearrowright$ $\widehat{\omega}$ $\bigcirc$ 192.168.1.100:8080	$\leftrightarrow$ $\rightarrow$ $\circlearrowright$ $\Rightarrow$ $\circlearrowright$ 192.168.1.100:8080/fmservice/dashboard/dispenser/colorant_list			Ŀ	
	Colorant Code 04 R1		0	_	^
Logged In As: admin Dispenser	Colorant Name 04 RED TONER		0	_	1
Faults	Density 04 0.0		0	-	
Canisters 🔹 Nozzle Closer 🔹	RGB Value 04 892121		0		

#### **Canister Menu**

The Canister section provides the ID and node information of each colorant. Node ID's always begin in the 20 range, meaning that a canister with a Node ID of 21 is canister 1. The canister section also



provides colorant information like the Colorant Code (ingredient name) and current level ready by Fluid Sense.

🖻 🖶 Idex Dispenser Service × +	×	- 0 ×
← → ♡ ⋒	80/fmservice/dashboard/dispenser/canister_list/canister_4	🛛 ★ 🍦 💪 🖒 …
	Parameters	
Logged In As: admin	Enabled true	0 v
Canister 2 - SP2 🔻		0
Canister 3 - SP3 🔻	4	
Canister 4 - R1 🔺	Node ID	0
Pump	24	
Agitator	Colorant Code	0
Sensors	R1	· · · · · · · · · · · · · · · · · · ·
Canister 5 - B1 🔍	Current Level	0
Canister 6 - Y1 🔻 👃	2.53437	

#### Pump menu

The Pump Parameters section contains information regarding the pump like pump type and speed values.

🖻 🖅 🖯 Idex Dispenser Service 🗙 🕂	+ ~				-	۵	×
$\leftrightarrow$ $\rightarrow$ $\circlearrowright$ $\textcircled{O}$ 192.168.1.10	0:8080/fmservice/dashboard/dispenser/canister_list/	canister_4/pump_4		_ ★	\$ 1	l B	
DISPENSER SERVICE	<b>Pump</b> Dispenser > Canisters > Canister	4-R1 > Pump	e abort	ර RESET	E LO	GOUT	
Logged In As: admin	Parameters		Commands				
Canister 2 - SP2 🔻	Enabled true	0 •	Dispense		6		
Canister 3 - SP3	State	0	Move Pump		6		
Pump	INITIALIZED		Calibrata Sluid Sease			_	
Agitator	Pump Type Dual Chamber	0 •				-	
Sensors		0					
Canister 5 - B1 🔻	High Speed 640						
Canister 6 - Y1 🔍 🧹							

Pump Commands located on the right side of the screen allow the user to perform different functions. Manual dispenses can be done from the Dispense section; all dispense amounts are in Liters (L).



🖷 🖅 🗖 Idex Dispenser Service 🗙 🕂	~					-	o ×
← → ♡ ⋒ ③ 192.168.1.100:80	80/fmservice/dashboard/dispenser/canister_list/car	ister_4/pump_4		ш 🔺	r s'≞	h	B
DISPENSER SERVICE	Parameters		Commands				
Logged In As: admin	Enabled	0	Dispense			0	
	true	v					
Sensors							
Canister 2 - SP2 🔻	State INITIALIZED	0	Dispense Speed	normal 🔻	0		
Canister 3 - SP3			Amount		0		
Canister 4 - R1	Pump Type Dual Chamber	0		Amount of ingredient to dispense (in L)	E		
Pump		0	Move Pump			0	

Pumps can be moved forward and backwards to test the stepper motors functionality.

🖻 🖅 🖾 Idex Dispenser Service 🗙 🕂	~						-	0
← → ♡ ₪ 0 192.168.1.100:80	80/fmservice/dashboard/dispenser/canister_list/c	anister_4/pump_4			ш 🔸	泸	h	ß
DISPENSER SERVICE	Parameters		Commands					
Logged In As: admin	Enabled	0	Dispense				0	
	true	Ψ					w	_
Sensors								
		0	Move Pump				0	
Canister 2 - SP2 🔻	State INITIALIZED						•	-
Canister 3 - SP3 🔻			Steps		(	0		
Canister 4 - R1	Pump Type	0						
cumser 4 m	Dual Chamber	Ψ	Direction	forward	<b>v</b> (	0		
Pump	High Speed	0			EXEC	UTE		

Steps can be set to any value and direction can be changed by selecting forward or backwards. Press execute to perform the action



DISPENSER SERVICE	Parameters		Commands		
admin	20		Dispense		U V
Colorants	Low Speed 200	0	Move Pump		0
Canister 1 - AX	Sniffback Amount	0	Steps	400	
Calibration Pump	- Sniffback Delay 500	Ø	Direction	forward v 👔	E
Agitator					
Sensors					
Canister 2 - BXL 🔻	Copyr	ight 2018 IDEX   All Rights Reserved	d.		

Progress status will appear during the pump move command.

DISPENSER SERVICE	Parameters	Co	ommands		
admin	20	Uispe	ense		V I
Colorants Canisters	Low Speed Exe	cuting Command (Move Pump) in Pump Status: In Progress	ıр 400	0	0
Canister 1 - AX	Sniffback Amour O Sniffback Delay 500	RESET 🛃 ABORT	forward		
Agitator Sensors					
Canister 2 - BXL 🔻	Co	pyright 2018 IDEX   All Rights Reserved.			

Completed status displayed upon completion of Pump Move command


DISPENSER SERVICE	Parameters	Com	nmands	
admin	20	Dispen	se	<b>v</b>
Colorants	Low Speed	Executing Command (Move Pump) in Pump Status: Complete	ιp	0
Canister 1 - AX	Sniffback Amour D	100%	forward v	
Pump Agitator	Sniffback Delay 500		EXECUTE	
Canister 2 - BXL		Copyright 2018 IDEX   All Rights Reserved.		

Calibration of Fluid Sense can be done on this menu. This is done when installing the machine for the first time or replacing a canister assy. Currently the canister must be full to accurately calibrate Fluid Sense.

Commands	
Dispense	0 v
Move Pump	0 v
Calibrate Fluid Sense	0 T

#### **Agitator Menu**

The Agitator parameters section allows the user to enable/disable agitation motors and contains the agitation duration and interval for the selected canister. The agitation duration and interval are predetermined by the machine configuration. The command section allows the user to agitate only the canister that has been selected



### Fluid Management

🖻 🕫 🗖 Idex Dispenser Service 🗙 🚽	+ ~				-	٥	×
$\leftarrow$ $\rightarrow$ $\circlearrowright$ $\textcircled{o}$ 192.168.1.10	00:8080/fmservice/dashboard/dispenser/canister_list/	'canister_4/agitator_4		0 ★	1≏ l~	Ŀ	
DISPENSER SERVICE	<b>Agitator</b> Dispenser > Canisters > Canister	4 - R1 > Agitator	👌 ABORT	3 RESET	E+ LOG	олт	
Logged In As: admin	Parameters		Commands				
Canister 2 - SP2 🔻	Enabled	0	Agitate		0		
Canister 3 - SP3 🔻							
Canister 4 - R1	State INITIALIZED	0					
Pump							
Agitator	Agitation Duration	0					
Sensors							
Canister 5 - B1 🔻	Agitation Interval 1800	0					

#### **Sensors Menu**

The Sensor Parameters contains Rembrandt information regarding the firmware PN (App SW Part Number), firmware version (App Firmware Version), Bootloader PN (Bootloader SW Part Number), and Bootloader Version. This information cannot be modified, it is read-only information.

The command for Read Values will update information regarding Fluid Sense.

Idex Dispenser Service X	+ ~		-	đ	1
→ Ů ⋒ ⊙ 192.168	1.100.8080/fmservice/dashboard/dispenser/canister_list/canister_4/canister_sensorspump4	D ★	r⁄⊒	Lι	6
PENSER SERVICE	Sensors Dispenser > Canisters > Canister 4 - R1 > Sensors	RT 3 RESET	E I	оболт	
gged In As: admin	Parameters				
Canister 2 - SP2 🔻	App SW Part Number Read Values			0	
Canister 3 - SP3 🔻	2738 Software part number of currently running application	EXECU	JTE		
Canister 4 - R1					
Pump	1.0.63				
Agitator	0				
Sensors	Bootloader SW Part Number 2788				
Canister 5 - B1 🔍	0				
Canister 6 - Y1 🔻	Bootloader Version				
	Copyright 2018 IDEX   All Rights Reserved.				

Calibration Feature not currently available



#### Fluid Management

DISPENSER SERVICE	Parameters		Commands
admin	Calibration Unit (N/A)	0	
Colorants	Number of Collection Factors	0	
Canisters			There's nothing here.
Calibration	Start Volume 1	0	
Pump		0	
Agitator	Factor 1		
Sensors			

### **Nozzle Closer**

The Nozzle closer Parameters contains Information regarding the Node ID, timing delays, travel distances and speed

DISPENSER SERVICE	<b>Nozzle Closer</b> Dispenser > Nozzle Closer		ABORT	S RESET [→ LOGOUT
admin	Parameters		Commands	
Canister 11 - JXL	Node ID	0		<b>v</b>
Canister 12 - KX 🔻	3 		Close Nozzle	0
Canister 14 - MX 🔻	Nozzle Close Delay 500	0		EXECUTE
Canister 15 - NXL 🔻	Nozzle Leave Open false	0	Move Nozzle	0 •
Nozzle Closer 🔹 🔻	Norrie Leave Open Delay	0	Auto Calibrate	Ģ
DPI 🔻	300	2019 IDEX   All Dights Personal	d	1

The Nozzle Commands located on the right side of the screen allow users to completely open and close the nozzle, move it to a specified step count and calibrate the nozzle so it makes a good seal when the DPI is not in the catch position and can reach both front and rear nozzle sensors.

To open the nozzle, select the Open Nozzle command and press Execute.



DISPENSER SERVICE		Parameters		Commands	
admin		Node ID 3	0	Initialize	0 T
Canister 11 - JXL 🔻				Open Nozzle	0
Canister 12 - KX 🔻		Nozzle Close Delay	0		
Canister 13 - LX 🔹		500			EXECUTE
Canister 14 - MX 🔻		Nozzle Leave Open	0	Close Nozzle	0
Canister 15 - NXL 🔻		false			
Canister 16 - OXL 🔻		Nozzle Leave Open Delay	0	Move Nozzle	0
Nozzle Closer	2	300			•
DPI					
D:		Copy	right 2018 IDEX   All Pights Posonyod		

Progress status will appear while the nozzle opens

DISPENSER SERVICE	Parameters		Commands	
admin	Node ID	0	Initialize	<u>e</u>
Canister 11 - JXL 🔻	3 Executing	Command (Open Nozzle) in Nozzle Clo	ser	
Canister 12 - KX 🔍	Nozzle Close Del	Status: In Progress		
Canister 13 - LX 💌	500		_	EXECUTE
Canister 14 - MX 🔍	Nozzle Leave Or		zle	0
Canister 15 - NXL 🔻	false	RESET 👌 A	ABORT	Ť
Canister 16 - OXL	Nozzle Leave Open Delay	0	Move Nozzle	Ø
Nozzle Closer 🛛 🔻	UUE			
DPI				
Dispense Job	Сору	right 2018 IDEX   All Rights Reserved.		

Completed status displayed upon completion of Nozzle Open command



DISPENSER SERVICE	Parameters	Commands
admin	Node ID T	Initialize
Canister 11 - JXL 🔻	3 Executing Command (Open Nozzle)	) in Nozzle Closer
Canister 12 - KX 🔍	Status: Complete	ste 🔮
Canister 13 - LX 🔻	500 100%	ЕХЕСИТЕ
Canister 14 - MX 🔻	Nozzle Leave O;	fully executed.
Canister 15 - NXL 🔻	false	
Canister 16 - OXL 🔻	Nozzle Leave Op	zte O
Nozzle Closer 🛛 🔻	300	
DPI		
Dispense Joh	Copyright 2018 IDEX   All Right	ts Reserved.

#### To close the nozzle, select the Close Nozzle command and press Execute

	<b>Nozzle Closer</b> Dispenser > Nozzle Closer		ABORT	S RESET 🕒 LOGOUT
admin	Parameters		Commands	
Canister 11 - JXL 🔻	Node ID	0		•
Canister 12 - KX 🔻	3		Close Nozzle	0
Canister 13 - LX 🔍				
Canister 14 - MX 🔻	Nozzle Close Delay 500	C		EXECUTE
Canister 15 - NXL 🔻			Move Nozzle	0
Canister 16 - OXL 🔻	Nozzle Leave Open false	() v		· · · · ·
Nozzle Closer 🔹 🔻	Nuclei Louis Davis Dalas	0	Auto Calibrate	() •
DPI 🔹	300			I
	Convright	2019 IDEV   All Dights Posonio	d	

Progress status will appear while the nozzle closes



### Fluid Management

DISP	PENSER SERVICE		Nozzle Closer Dispenser > Nozzle Closer		👌 Abort	⇒ RESET [→ LOGOUT]
adr	nin		Parameters		Commands	
	Canister 11 - JXL	•	Executing Co	ommand (Close Nozzle) in Nozzle	Closer	•
	Canister 12 - KX	v	Node ID 3	Status: In Progress	zle	0
	Canister 13 - LX	•	0%			
	Canister 14 - MX	•	Nozzle Close Del 500		_	EXECUTE
	Canister 15 - NXL	•		RESET		0
	Canister 16 - OXL	•	Nozzle Leave Ope false	Ť		
	Nozzle Closer	7			Auto Calibrate	0 v
	DPI	v	Nozzle Leave Open Delay 300	, i i i i i i i i i i i i i i i i i i i		
	Dispense Job		Copyrig	ght 2018 IDEX   All Rights Reserved	t.	

Completed status displayed upon completion of Nozzle Open command

	Nozzle Closer Dispenser > Nozzle Closer	ABORT 💍 RESET 🕞 LOGOUT
admin	Parameters	Commands
Canister 11 - JXL 🔻	Executing Command (Close Nozzle) in Nozzle C	Closer
Canister 12 - KX 🔻	Node ID Status: Complete	
Canister 13 - LX 🔻	100%	
Canister 14 - MX 🔻	Nozzle Close Dei Il Command has been successfully executed	d. Execute
Canister 15 - NXL 🔻		ci ose
Canister 16 - OXL 🔻	Nozzle Leave Or false	The second se
Nozzle Closer 🛛 🔻		Auto Calibrate
DPI	Nozzle Leave Open Delay 300	
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To calibrate the nozzle, select the Auto Calibrate command and press EXECUTE. This will need to be performed when first installing the dispenser



DISPENSER SERVICE	Parameters		Commands	
admin	Enabled true	ę į	Open Nozzle	0
ושקנוש			·	· · · · ·
Faults	ID nozzle1	0	Close Nozzle	0
Colorants				
Canisters 🔻	Node ID	0	Move Nozzle	0 v
Nozzle Closer	3			
Sensors		0	Auto Calibrate	0
DPI 🔺	Nozzle Close Delay 500			EXECUTE
Sensors				
Dispense Job				
	Сору	right 2018 IDEX   All Rights Reserved.		

### Sensors Menu

The Nozzle Sensors Commands located on the right side of the screen allow the user to read the current status of the sensor

DISPENSER SERVICE	Parameters		Commands	
admin	Open Sensor	0	Read Sensors	0
Dispenser 🛆				EXECUTE
Faults	Home Sensor D	0		
Colorants				
Canisters 🔻	Motor Voltage Sensor	0		
Nozzle Closer 🔷	0			
Sensors	REVERT			
DPI 🔻				
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Progress status will appear while the sensor is read



DISPENSER SERVICE	Parameters		Commands	
admin	Open Sensor	0	Read Sensors	<b>0</b>
Dispenser	Executi	ing Command (Read Sensors) in Sen	isors	EXECUTE
Faults	Home Sensor	Status: In Progress	_	
Colorants	0%			
Canisters <b>T</b>	Motor Voltage S			
Nozzle Closer 🛛 🛆	0	RESET	C ABORT	
Sensors	REVERT UPDATE			
DPI				
Dispense Job	Com	right 2019 IDEX   All Dights Decoming	d	

Completed status displayed upon completion of Sensor Read command

DIS	PENSER SERVICE	Parameters	
ad	min	Open Sensor	
	ispenser 🔺	Status: Complete	
	Colorants	100%	
	Canisters 🔻	Motor Voltage 5	
	Nozzle Closer		
	DPI	REVERT	
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### DPI

The DPI menu will contain data regarding the dew point of the ambient air







# **ASX500 PARTS MANUAL**

Please Refer to Spare Parts Manual / Catalog as a separate document.