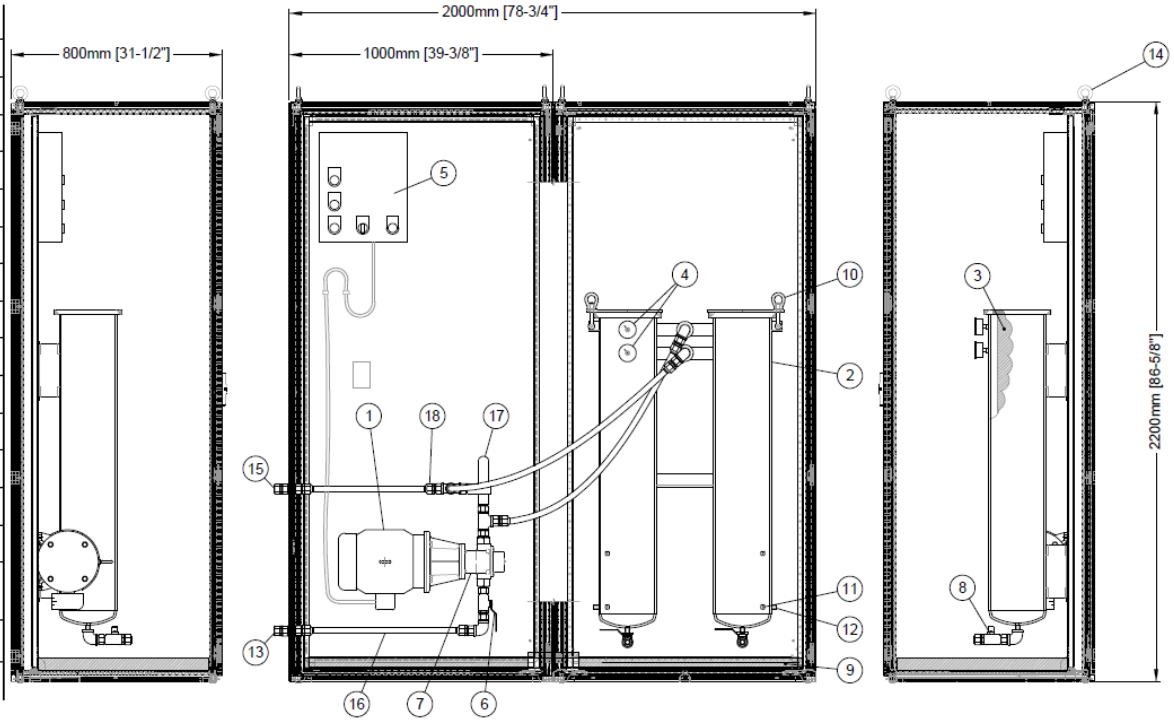
DieselPure

800.901.0078 info@dieselpure.com

General Operator's Manual

rev. 1.0a March 12, 2016

NO.	DESCRIPTION
1	BALDOR CONTINUOUS DUTY MOTOR
2	ASME PRESSURE VESSEL
3	DIESELPURE COALESCING ELEMENT
4	LIQUID FILLED PRESSURE GAUGES
5	CONTROL PANEL (C.S.A. APPROVED)
6	PRESSURE VESSEL WATER DRAIN
7	CONTINUOUS DUTY GEAR PUMP
8	WATER DRAIN VALVE
9	DRIP TRAY
10	LID BOLTS
11	OPTIONAL HEATER
12	WATER SENSOR
13	FUEL INLET/SUCTION
14	FILTERED FUEL OUTLET
15	STAINLESS STEEL BRAIDED FLEXLINE - JIC CONNECTIONS
16	FULFLO PRESSURE BYPASS VALVE
17	SAE STEEL FITTINGS



For replace filter kits please call sales (518) 635-4343 or info@core-es.com

Table of Contents

Technical Support

Contacting Technical Support

Technical Support Toll-Free Phone: (800) 901-0078
Technical Support Email: support@dieselpure.com
Website: www.dieselpure.com
or
Core Engineered Solutions NE : (518) 635-4343
Technical Support Email: info@core-es.com
Website: www.core-es.com

System Operation

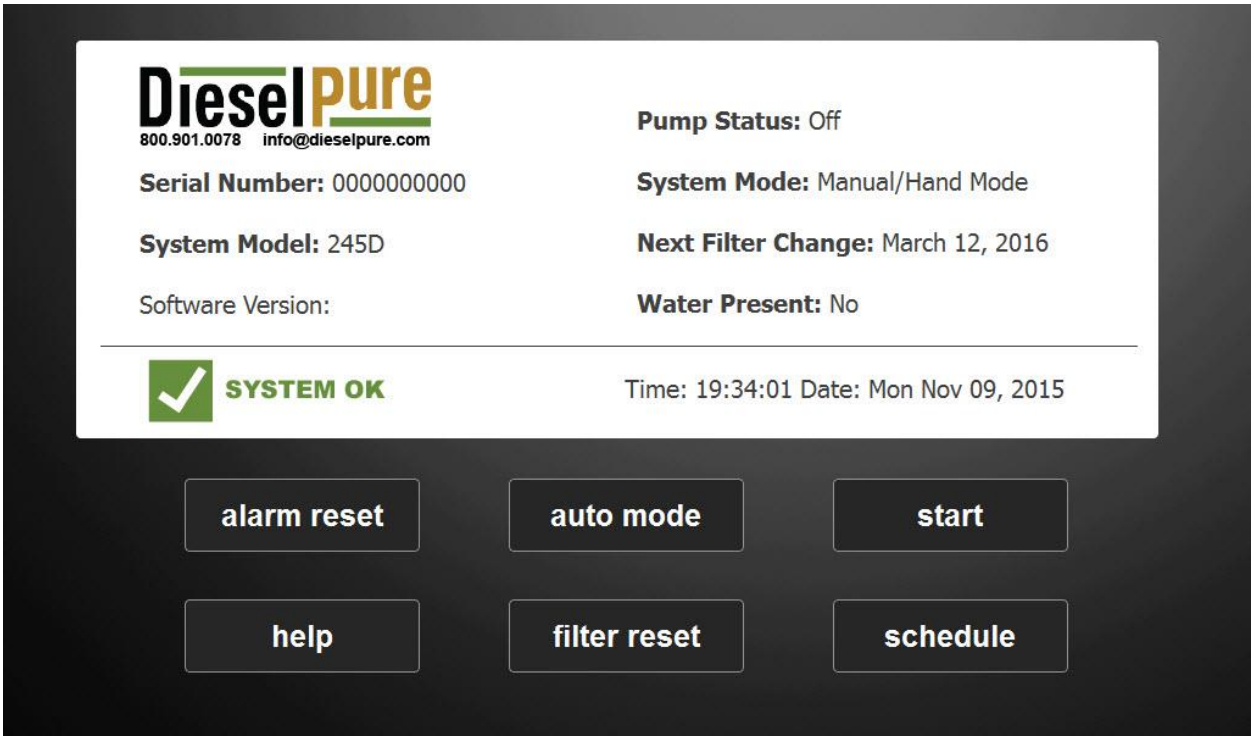
Emergency Shutdown Procedure

If it is necessary to immediately turn off the pump and interrupt any automation press the red stop button on the front of the control panel. When this button is pressed it will latch in the off position and the system will remain interrupted.

	**WARNING: The emergency stop button does not turn off system power and is not a service lockout device.**

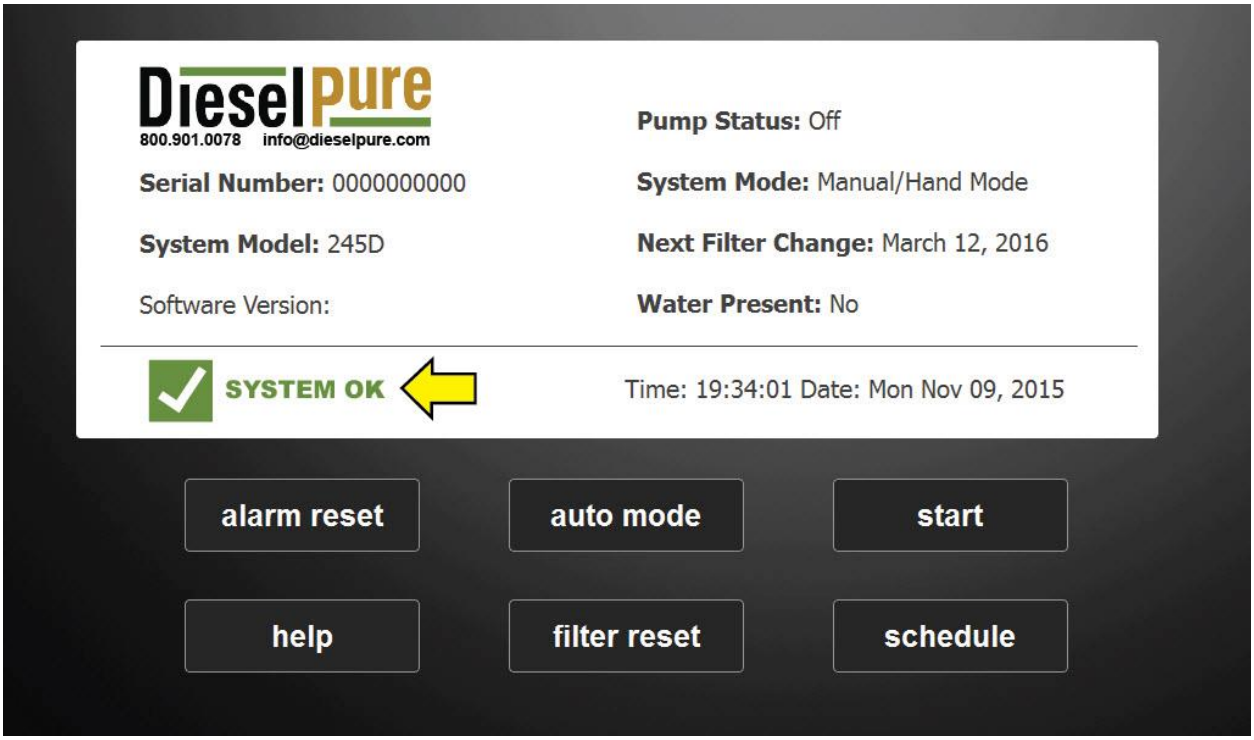
Touch Screen Interface

Graphical User Interface (GUI)

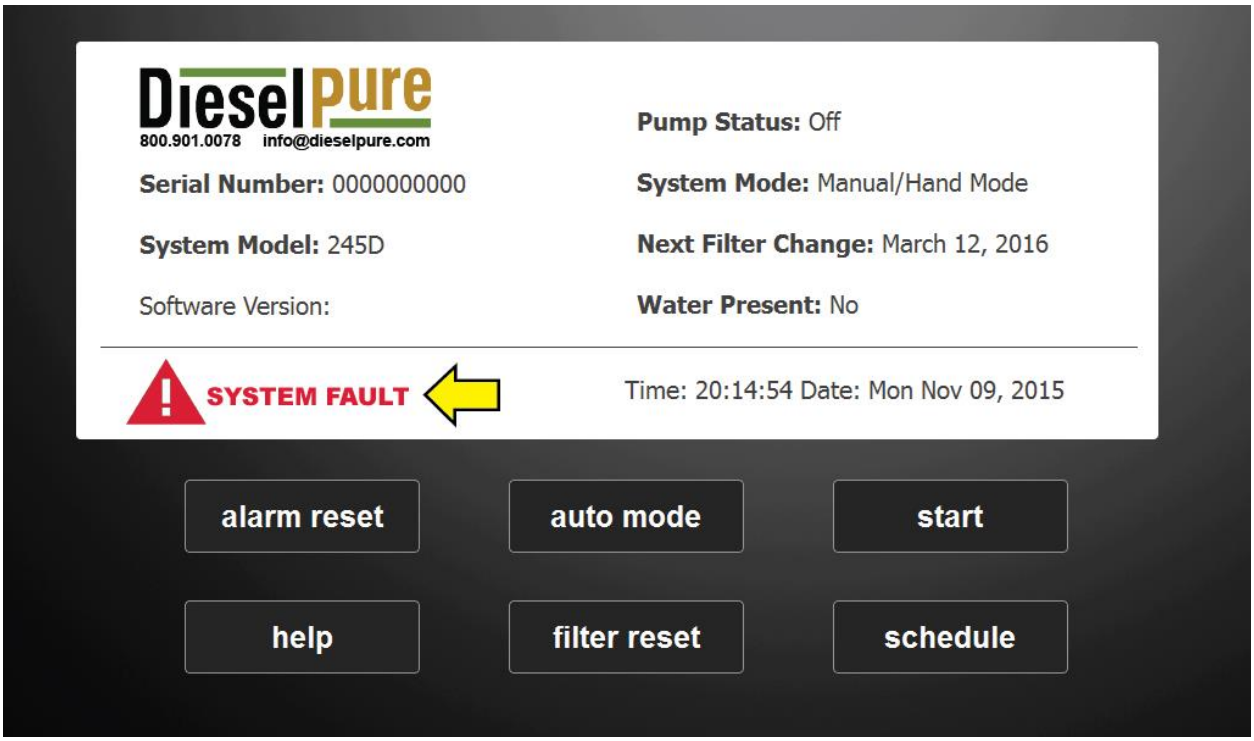


The primary user interface for the DieselPure system is a resistive touch-screen display. This GUI starts automatically when the system is powered on.

	**IMPORTANT: It may take 2 minutes or longer for the touch-screen display and GUI to completely load after switching the system on.** **If the GUI is not displayed after 3 minutes from switching the power on please follow the troubleshooting steps.**



This icon will show when the system is operating properly.



This icon will show when the system is reporting a problem preventing correct operation.

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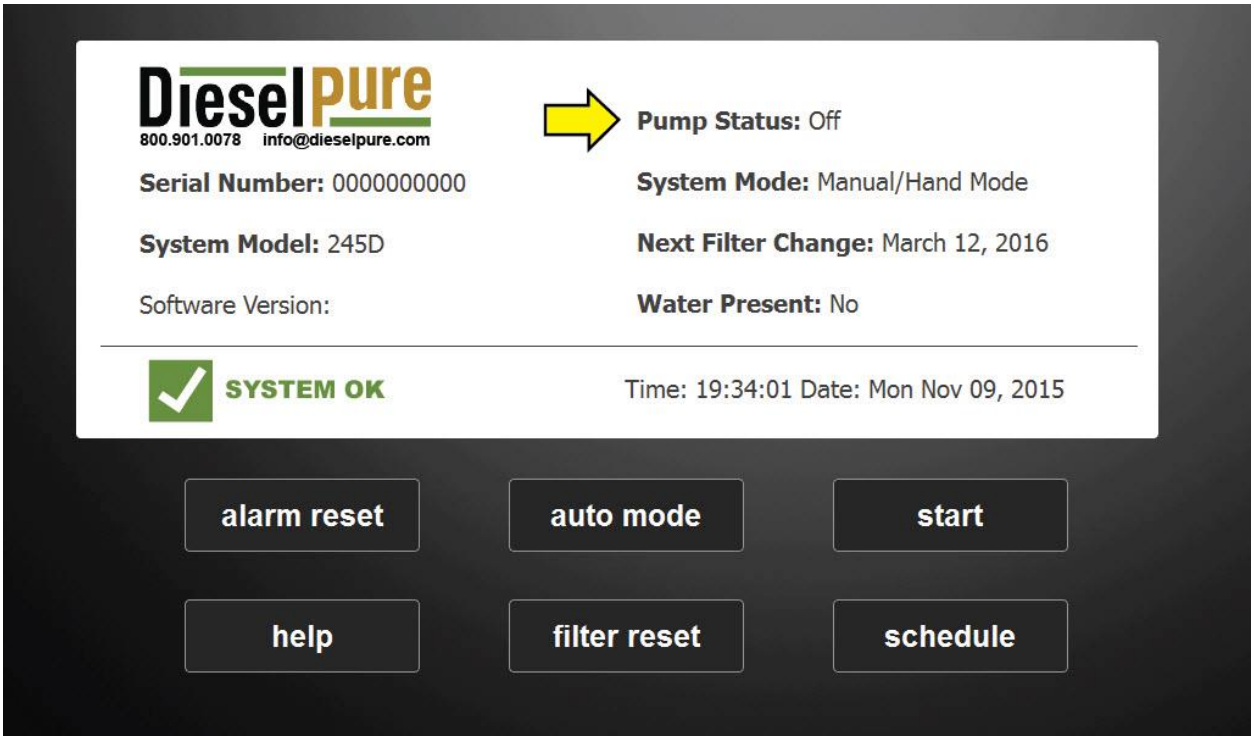
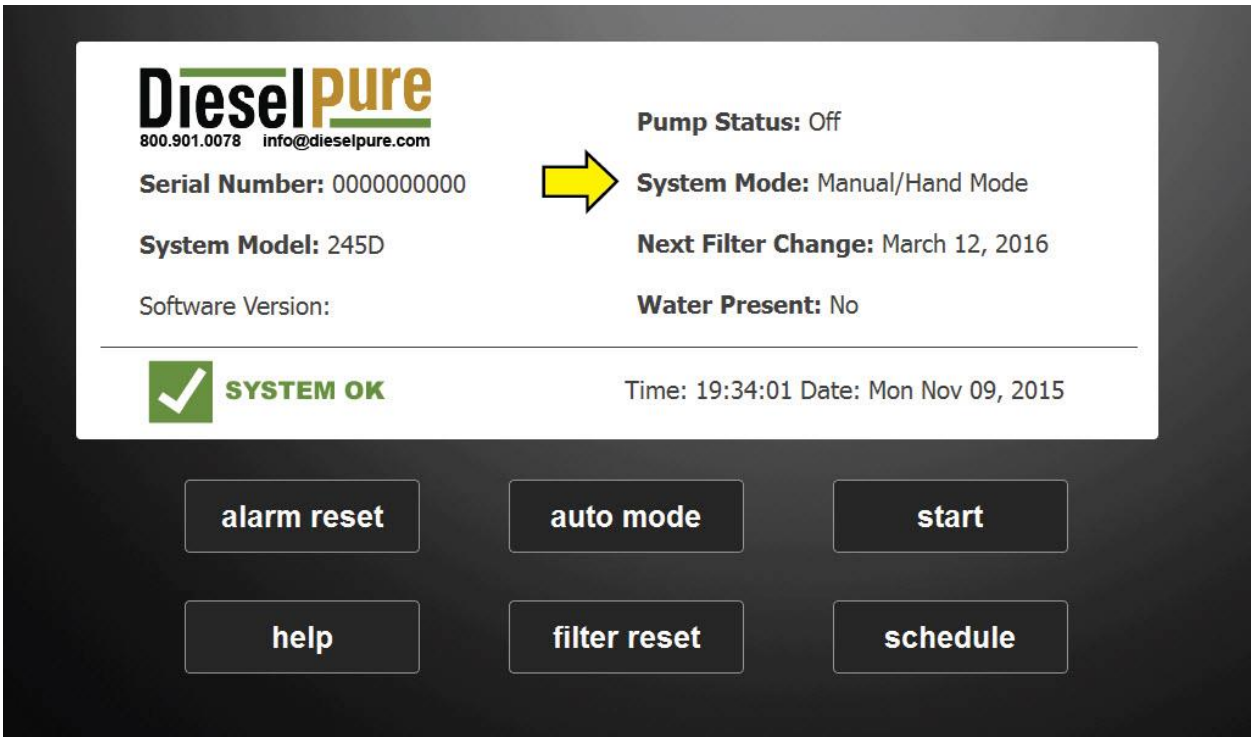
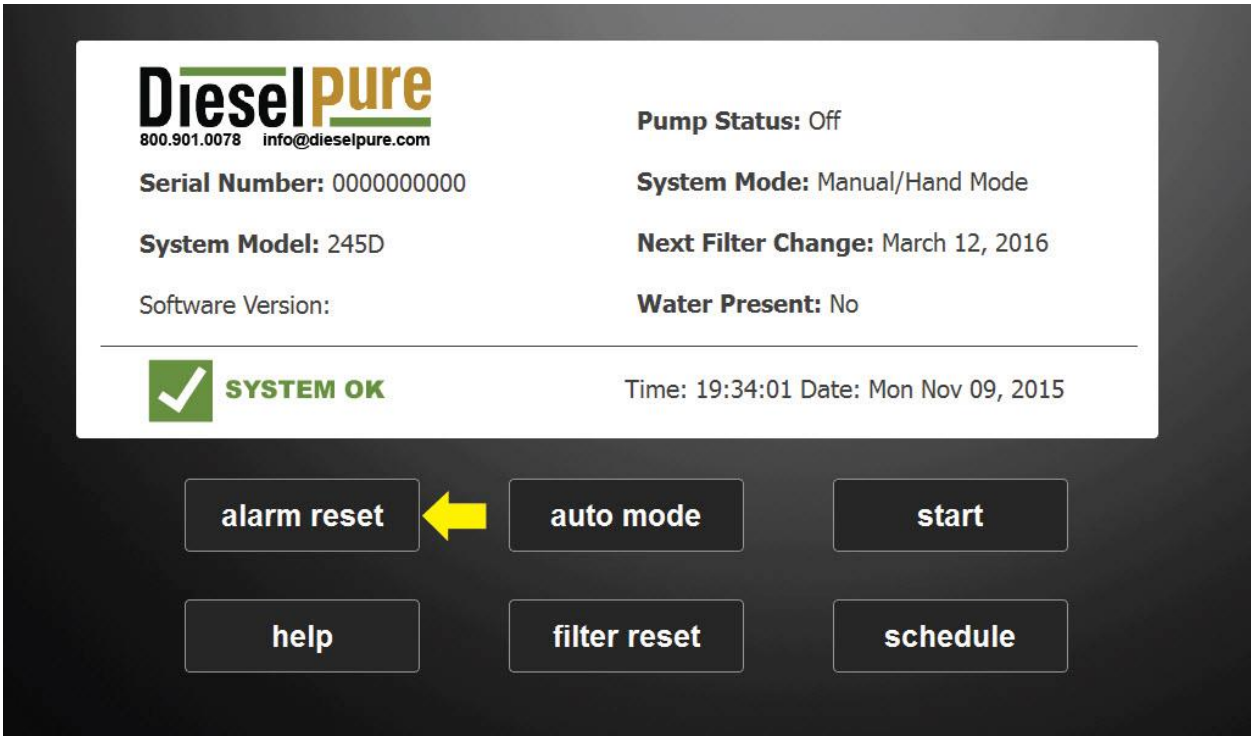
	**IMPORTANT: When the SYSTEM FAULT icon is displayed please refer to the Alarms and Troubleshooting section of this manual.**



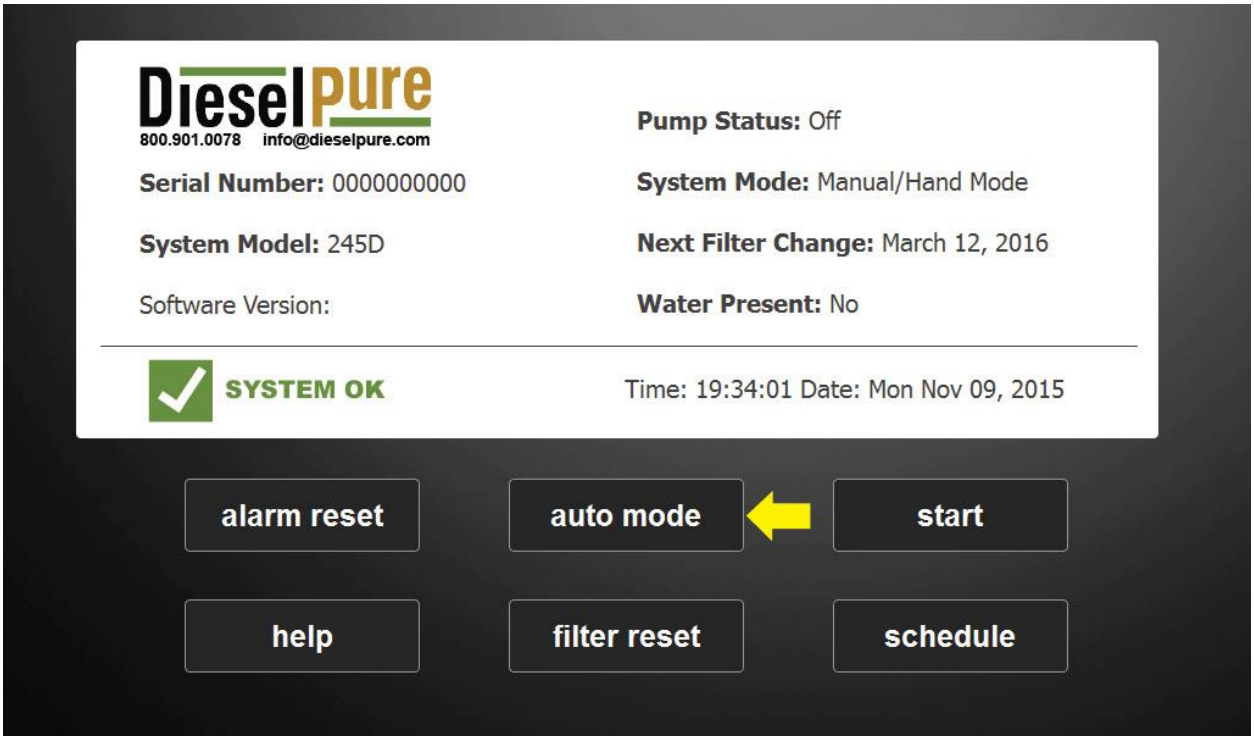
This area of the GUI indicates the current pump ON/OFF state.



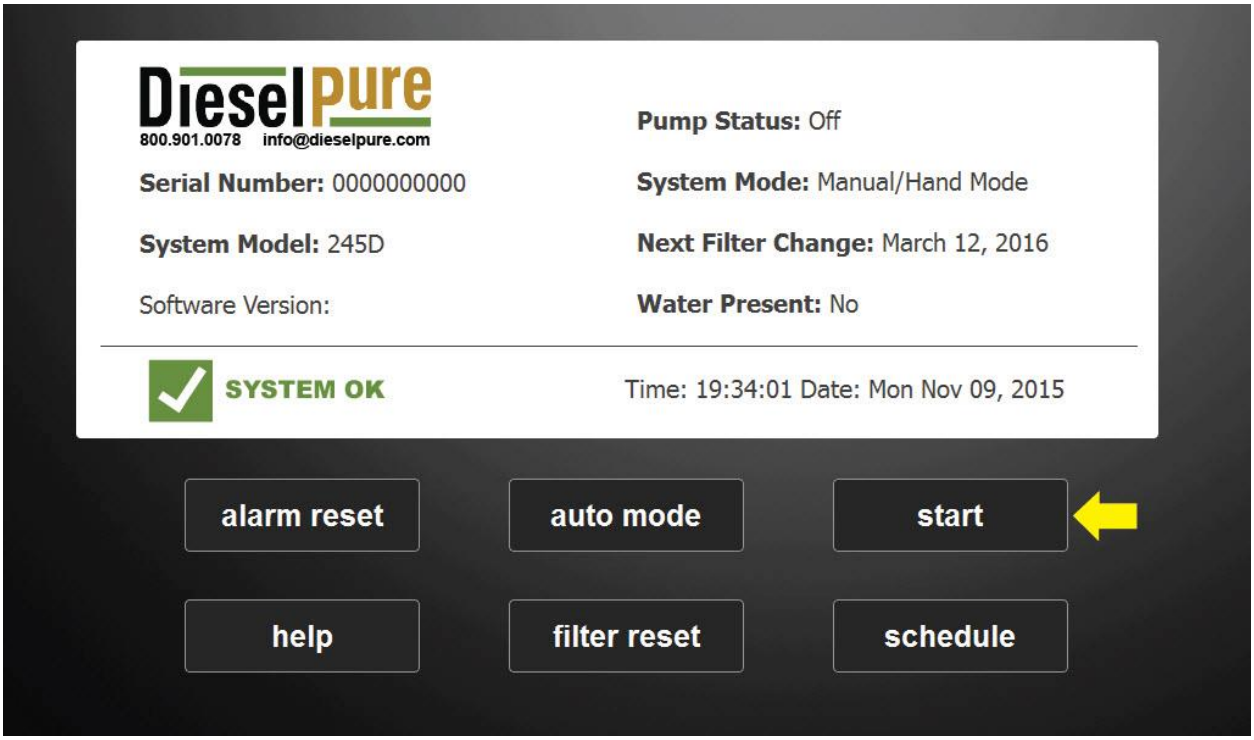
This area of the GUI indicates the current pump mode (Auto or Manual/Hand Mode)



The alarm reset button used to reset the alarm status after a system fault has been corrected.



The auto mode button is used to switch between auto mode (scheduled run cycles) and manual (hand operated mode).



The start / stop button is used to start and stop the pump independant of any schedule cycles.

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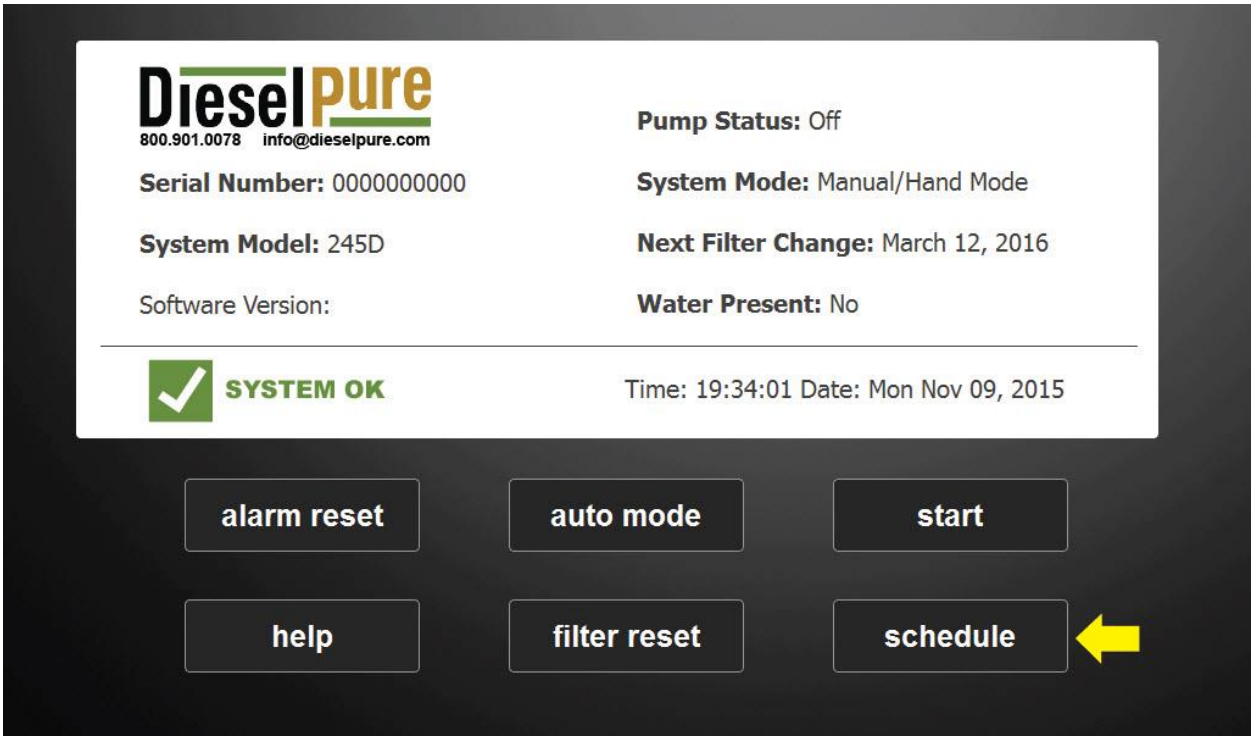
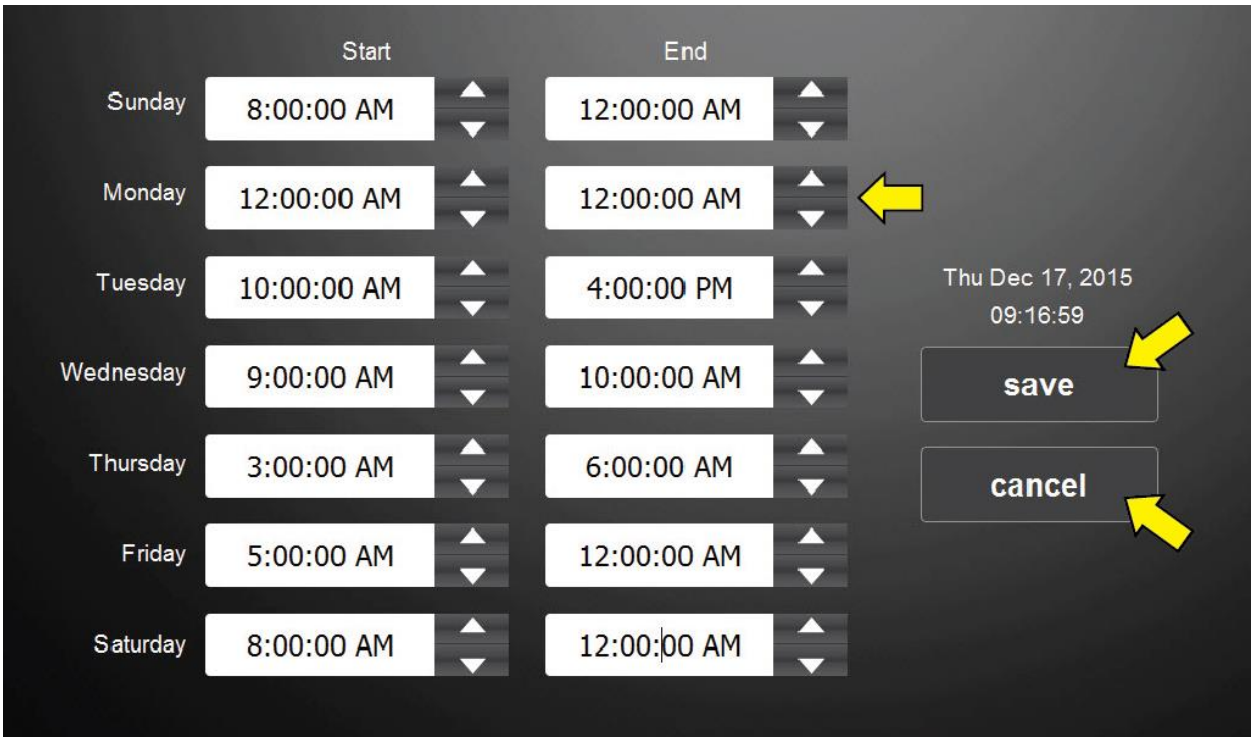


The schedule button is used to open the filter cycle scheduler



Filtration cycles can be scheduled using the built-in scheduling tool. The filter system can be set to run during specific hours each day of the week.

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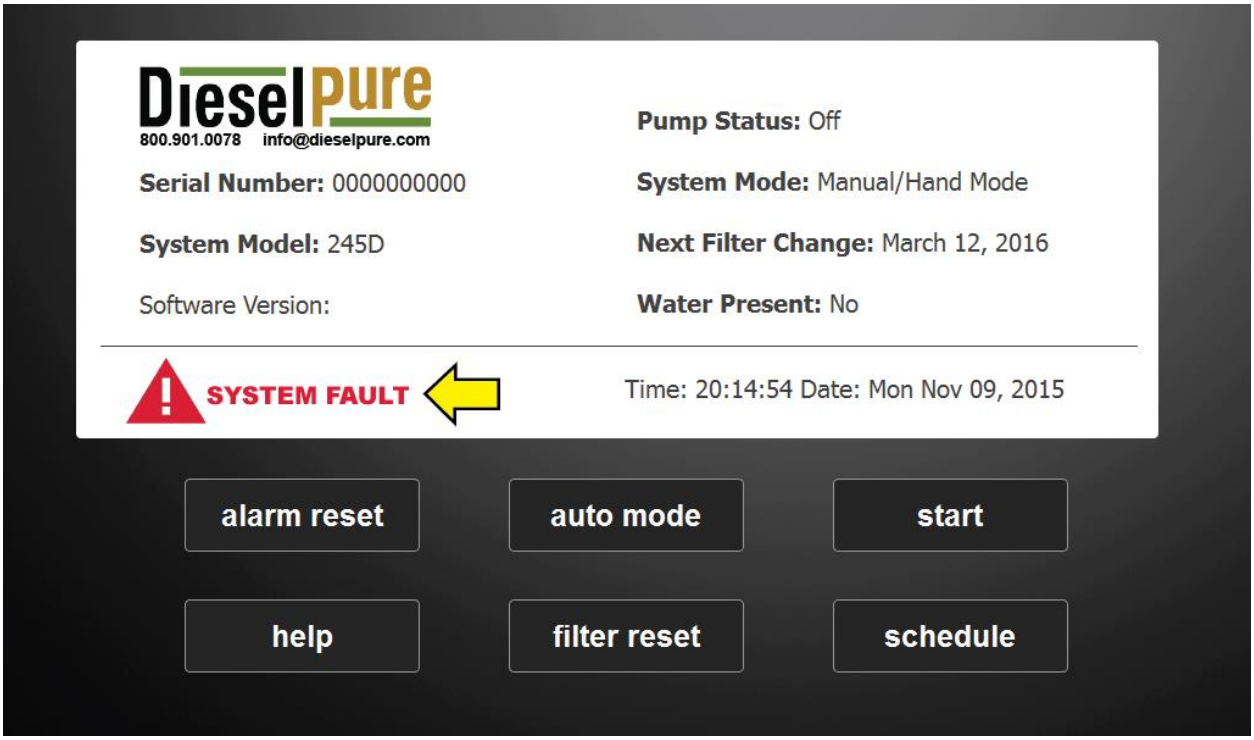
To prevent the pump from running on a particular day simply set the start time to 12:00 am and the end time to 12:00 am. Pump cycles can be scheduled in 1 hour increments, setting the minutes options for the schedule will have no effect.

Alarms and Troubleshooting



The system fault icon will be shown on the screen when a sensor detects an unsafe or abnormal operating condition. These conditions can include a fluid leak, pump fault, and general system faults.
System fault causes may include:

- Water in fuel
- Leak Detected
- Motor Overload

The alarm reset button can be used to reset the fault alarm after the cause has been corrected.

Emergency Shutdown Procedure

If it is necessary to immediately turn off the pump and interrupt any automation press the red stop button on the front of the control panel. When this button is pressed it will latch in the off position and the system will remain interrupted.

Alert! The emergency stop button does not turn off system power and is not a service lockout device.

Maintenance

Scheduled Maintenance

	**IMPORTANT: DieselPure® Filters must be changed every 4 months to ensure efficient and complete filter performance.**

General Cleaning and Inspection

It is recommended that when the filters are replaced the operator should inspect the system enclosure for damage. The drip tray should be cleaned and the leak detection float switch should be inspected for interference from debris.

Putting System in Maintenance Mode

	**WARNING: Disconnect power from the DieselPure® system. Specifically the control panel must be completely disconnected from any power source before beginning any maintenance or service work.**

System Lockout

This equipment does not include built-in electrical safety lockout switches. The site operator must ensure that power is correctly disconnected before any maintenance is performed.

Changing the system filter(s)

Every four months the filter has to be changed.

The filters are SAE J1488 certified to remove emulsified water in ULSD and ULSD blended with bio-diesel to twenty percent (B20).

Adding bio-diesel to petroleum ULSD may make the fuel burn cleaner, but it will also make the fuel absorb water from the atmosphere quickly. Bio-diesel may be a natural product, but it is also a surfactant, which means it will make the fuel absorb water faster.

The SAE J1488 certification test ensures that your DieselPure™ filters will be efficient with the current ULSD fuel and future bio-diesel blends up to B20. This SAE test is the highest rating a filter can achieve to ensure the protection and sustainability of your mission critical fuel. Without this SAE J1488 test, emulsified water will build up in the fuel and continually pass right through into the diesel generator's high pressure injection system. Without this SAE rating, your generator will be at risk.

The filter has a massive amount of filter media in the element for its size. It will filter particulates to the sub-micron level, and hold quite a lot considering its size. HOWEVER, the filter resin deteriorates in the diesel fuel and therefore must be replaced four months after exposure to fuel. This is important for the DieselPure™ filter to operate at SAE tested efficiency levels.

General Maintenance

Cleaning/Inspection
Filter Changes
Check pump for abnormal sounds during operation, please contact DieselPure for service.

Step1: Press the Stop Pump button and ensure it is latched in the stop position.	

Step 2: Turn off the “Fuel Inlet” ball valve.	
Step 3: Remove the “Water Drain Plug”	
Step 4: Drain off water from fuel through the oily water filter and into a waste container. The water can be safely disposed of in your water drainage system. Discard the filter using company hazmat policy.	

Step 4: Remove Filter Canister Bolts from the top of the fuel canister.	
Step 5: Carefully pry filter loose.	
Step 6: Remove the filter from the inlet tube.	

Lubricate the “O” ring with a bit of diesel	

Step 8: Insert the new DieselPure™ Efficiency SAE compliant filter

Step 8 a: Replace the outer canister making sure to align the canister “O” ring.

B: Replace the Canister Bolts.

Step 9: Carefully tap the down the filter into the canister.	 

Step 9a: Check the water drain plug and ball valve to make sure they sealed and off. 9b: Turn the Fuel Inlet ball back to the “OPEN” position	
Step 10: Turn the electrical power to the DieselPure™ system back on. Check for fuel leaks and wipe the system down with a clean cloth.	

Technical Information

Filters

DieselPure® Efficiency filters are SAE J1488 ver. 2010 Emulsified Water / Fuel Separation certified to remove emulsified water in ULSD and ULSD blended with bio-diesel to twenty percent (B20).

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The SAE J1488 certification test ensures that your DieselPure® filters will be efficient with current ULSD fuel and future bio-diesel blends up to B20. This SAE efficiency rating is the highest rating achievable. It ensures the protection and sustainability of your mission critical fuel.

The DieselPure® Efficiency filter contains substantial amounts of filter media. It filters particulates to the sub-micron level, and considering its size, holds considerable amounts of particulate. HOWEVER, the filter resin deteriorates in diesel fuel and must be replaced four months after exposure to fuel. .

For continuous SAE J1488 ver. 2010 Emulsified Water / Fuel Separation tested efficiency Operation, change the DieselPure® Efficiency SAE Filter every four months.