R56 LIQUID

Truck Mount Operation and Service Manual

Congratulations on the purchase of your R56 Liquid Truck Mount ("Truck Mount"). This manual is an instructional guide for installing, operating, and servicing your Truck Mount. *Read this manual completely before installing, starting, or operating your Truck Mount.* Please review important safety and warning restrictions located here.

Following proper operation and service maintenance are necessary to ensure optimal and long-term performance of this Truck Mount.

The instructions outlined in this manual are written to help ensure that operation and service are performed properly and safely. Since service levels vary between services locations, you should ensure, prior to any service, the service provider has the proper equipment and tools to complete the task. Please call a Chem- Dry customer care representative at 866-390-2376 for help with any questions regarding maintenance, repair, warranty, or parts for this Truck Mount.

THIS TRUCKMOUNT MUST BE INSTALLED BY AN AUTHORIZED DEALER IN ACCORDANCE WITH THE PRESCRIBED INSTALLATION PROCEDURES. FAILING TO ADHERE TO THIS REQUIREMENT COULD VOID WARRANTY.

To quickly jump to the section you are looking for, select the title of the section you would like to view in the Table of Contents and you will automatically be taken to that section.

Aero Tech MFG Inc. **("ATMI")**
398 W 1100 N, North Salt Lake City
UT 84054 U.S.A.
MANUAL-R56LIQUID Rev. MAY 2025

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SECTION ONE: GENERAL INFORMATION

HOW TO ORDER PARTS

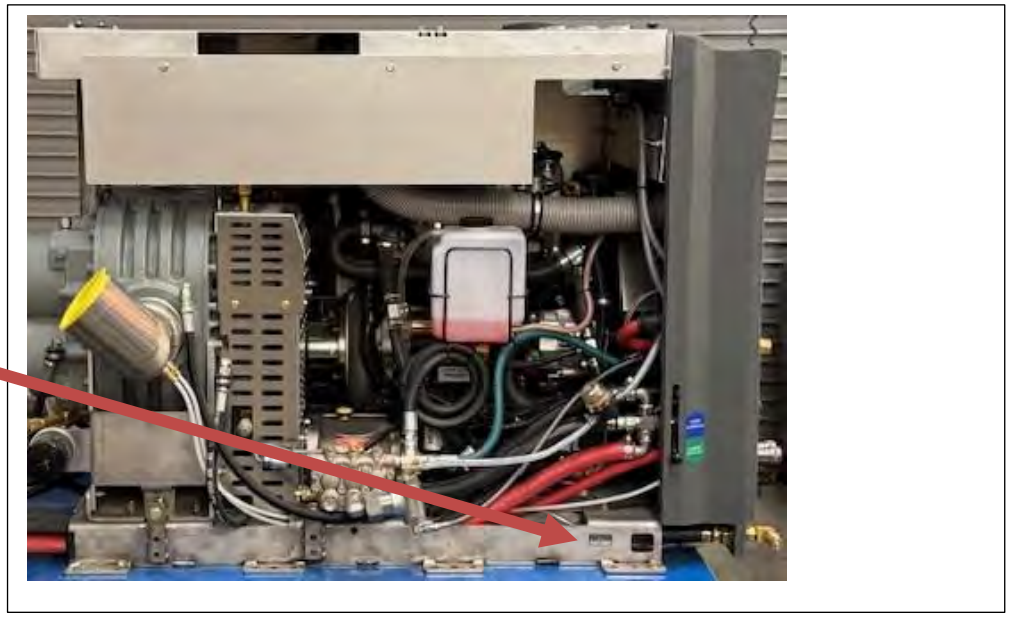
Ordering Parts

Parts may be ordered from authorized dealers. When placing an order for parts, the Truck Mount model and serial number are required.

If you are ordering warranty parts, please contact your authorized ATMI Service Center dealer to determine which parts you need, to schedule an appointment, and provide information in regards to your concern. The Service Center will inspect the Truck Mount for any defect in material/craftsmanship and will contact ATMI for verification of the warranty, if necessary. Proof of proper maintenance may be required before any warranty service is provided. Find your local Service Center by calling 866-390-2376. Please have the following information ready:

- Truck Mount Model
- Date of Purchase
- Hours on the Truck Mount
- Truck Mount Serial Number
- Description of Service Type or Truck Mount Malfunction

The model and serial number of your Truck Mount is located on the front left side of the frame as shown here.



You must read and understand this manual prior to installing, operating, maintaining, and servicing this Truck Mount.

SAFETY, WARNINGS, & CAUTIONS

The following warnings are included on your Truck Mount. These labels point out important WARNINGS which must be followed at ALL times. Failure to follow these warnings could result in injury, fatality, or property damage. Please be meticulous when following these instructions. DO NOT remove any of the warning decals.

⚠WARNING

ATMI uses this WARNING symbol throughout this manual to warn users about the possibility of physical injury or fatality. Please read these warnings thoroughly before operating the Truck Mount.

CAUTION

ATMI uses this CAUTION symbol to warn of the possibility of damage to the Truck Mount or personal property.

⚠WARNING

An engine produces toxic exhaust gas, DO NOT operate in a confined area. Exhaust fumes contain carbon monoxide which is an odorless and deadly poison that can cause severe injury or fatality. Position the Truck Mount so exhaust will be directed away from job site. DO NOT operate equipment where exhaust may enter a building through open doors, windows, or other air intake.

WARNING: Breathing engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defeR SERIES or other reproductive harm.

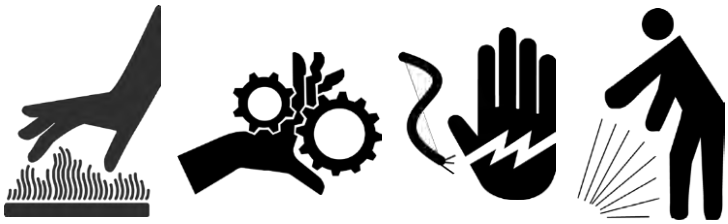
- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- DO NOT modify or tamper with the exhaust system.
- DO NOT idle the engine except as necessary. For more information go to www.P65Warnings.ca.gov

NOTE: Any Truck Mount entering the State of California must properly display Proposition 65 warning labels. This label has been included with the other warning labels and must be installed in a clearly visible location. If you are in California and do not see this label installed or need a replacement, contact ATMI immediately at 866-390-2376.

Gasoline is extremely flammable and its vapors can explode if ignited. Store gasoline only in approved containers, in well-ventilated, unoccupied buildings and away from sparks or flames. Never carry gasoline or any flammable materials inside the vehicle. Fumes could accumulate inside of the vehicle and ignite, causing an explosion. Never operate the Truck Mount with a portable gas container inside the vehicle. Doing so will increase the risk of fire and explosion. Serious injury or fatality may result.

⚠WARNING

Read this manual before operating, starting, or installing this Truck Mount. Failure to adhere to instructions can result in severe personal injury or could be fatal or cause damage to the Truck Mount or other property.



⚠WARNING

Hot Surfaces. DO NOT operate equipment without all covers and guards in place. During the operation of the Truck Mount many surfaces will become extremely hot. Never touch hot surfaces, serious injury may result. Engine, vacuum pump and heat exchanger components, and hoses and fittings will be extremely hot from operation. To prevent severe burns, DO NOT touch these areas while the Truck Mount is running, or shortly after the Truck Mount is shut off. DO NOT touch any part of the exhaust system while the system is running, or for at least 20 minutes after the Truck Mount is shut off. Severe burns could result.

Rotating Equipment. DO NOT operate equipment without all covers and guards in place. DO NOT touch these areas while the Truck Mount is running, severe injury could result. DO NOT place hands, feet, hair, clothing or any body parts near rotating or moving parts. Rotating machinery can cause severe injury or fatality.

Electrical Shock. Electrical shock could cause severe burns or injury. DO NOT touch electrical wires or components while the engine is running. Disconnect the battery before servicing this Truck Mount to prevent accidental starting.

Water Pressure. Water under high pressure at a high temperature can cause burns. Shut down Truck Mount, allow to cool down and relieve system of all pressure before removing valves, caps, plugs, fitting, filters, and bolts.

Failure to follow all of these guidelines can cause severe injury or fatality.

CAUTION

1. NEVER leave the vehicle engine running while the Truck Mount is in operation.
2. Never operate the Truck Mount when the vehicle is tilted more than 10 degrees in any direction. Doing so will result in improper lubrication of the internal components and will increase the risk of serious component or engine damage.
3. Battery acid contains sulfuric acid. To prevent acid burns, avoid contact with skin, eyes and clothing. Batteries also produce explosive hydrogen gases while charging. To prevent fire or explosion, charge batteries only in a well-ventilated area. Keep sparks, open flames, as well as other sources of ignition away from the battery at all times. Remove all jewelry prior to servicing batteries. Keep batteries out of the reach of children.
   Prior to servicing or replacing your battery, disconnect the negative (–) ground cable and ensure that all switches are in the off position. If on, a spark could occur at the ground connection terminal which could cause an explosion if hydrogen gas or gasoline vapors are present. ALWAYS disconnect the negative (–) terminal first.
4. DO NOT smoke around the vehicle to prevent possible ignition and/or explosion. Gas fumes could accumulate and ignite. Battery gasses are extremely flammable.
5. NEVER cut or splice any of the vehicle fuel lines during fuel line installation. This could result in fuel leaks and potentially dangerous conditions. Use only the provided fuel hose for fuel lines. When going through the vehicle floor with fuel lines, always utilize bulkhead adapters. This will prevent fuel leaks and ensure that hoses are not punctured by vehicle vibration abrasion.
6. Be cautious when drilling holes through the van floor. Many vans have critical components mounted directly below the van floor that can be easily damaged by a misplaced drill bit. Before drilling holes in the floor of the vehicle, inspect the underside of the vehicle for critical components. Failure to do so may result in damage to the vehicle.

7. All high-pressure hoses must be rated to a minimum of 250° F (121° C) and 3,000 PSI. Severe injuries may result from improper hoses.
8. Vehicle doors must be open while the Truck Mount is in operation.
9. Never perform cleaning operations or extraction when the Truck Mount engine is running at the IDLE throttle position. Failure to do so will increase the risk of serious component or engine damage.
10. Never use concentrated acids or solvents (including d-limonene) in the Truck Mount water system or chemical system. Use of these products will cause serious component damage.
11. Never operate the Truck Mount with a water hardness reading measuring 3.0 grains per gallon (GPG)or higher. Using water that reads more than 3.0 GPG will cause scale to buildup inside the Truck Mount water system. Scale build up causes serious component damage. Test all water prior to use and use water softening equipment if necessary. See the Water Requirements section for more details.
12. Never allow water to freeze (32° F and 0° C) inside the Truck Mount. Failure to apply preventative measures towards freezing can result in system failure, serious component damage, and loss of warranty on affected parts. Perform all freeze guarding procedures outlined in this manual. See the Freeze Protection section for more details. Water freezes at 32° F and 0° C.
13. DO NOT EXCEED THE VEHICLE'S PAYLOAD CAPACITY. The vehicle's payload capacity is the amount of weight the vehicle can carry including the weight of all occupants, equipment, solutions, etc. The vehicle payload capacity can be found on the Tire and Loading Information label and the Certification/Tire label found on the driver's door of your van. DO NOT load the vehicle any heavier than the Gross Vehicle Weight Rating (GVWR), or either the maximum front or rear Gross Axle Weight Rating (GAWR). This can cause systems to break and change the way the vehicle handles. Overloading can also reduce stopping performance, damage the tires, and shorten the life of the vehicle.
    Steps for determining correct load limits:
    a. Locate the statement "The combined weight of occupants and cargo should never exceed XX kg or XX lbs." on your vehicle's label.
    b. GVWR: Determine the combined weight of the occupants, equipment, etc. that will be in the vehicle.
    c. Curb Weight: Subtract the combined weight of the driver and passengers from XX kg or XX lbs.
    d. Payload Capacity: The result equals the available amount of cargo and equipment load capacity. Example: If the GVWR for a vehicle is 9,600 lbs. and the vehicle has a base curb weight of 6,400 lbs., this leaves a payload capacity of 3,200 lbs. (GVWR - Curb Weight = Payload Capacity).
    e. Determine the combined weight of equipment and cargo being loaded on the vehicle. That weight may not safely exceed the payload capacity calculated in step D.
14. Always keep your vehicle clean and orderly. Tools and accessories must be securely stowed while driving the Vehicle to prevent injuries or damage.
15. Ensure that you have received proper training and are familiar with the start-up and shut-down procedures prior to operation.
16. DO NOT alter or modify your Truck Mount in any way. Use only replacement parts authorized by ATMI. Modifications or use of unapproved parts could create a hazard and will void your warranty. This includes the use of any open-ended hoses.
17. It is recommended by ATMI, and many government agencies, that a fire extinguisher rated for A, B, and C type fires is installed into any commercial vehicle.

SYSTEM SPECIFICATIONS

Engine – PSI 0.998L 4 Cyl, EFI	Engine Speed	3,100 RPM (High Speed/No Load ~1,150 RPM (Idle/No Load)
	Oil Type	15W-40 Motor Oil
	Est. Capacity	Approx. 2.8 L/3 U.S. quarts when changing oil and filter* *before operating, check oil level to ensure proper levels
	Fuel Consumption	≈1.5 GPH
	Coolant	Dex-Cool 50/50 Mix, add 12 ounces Water Wetter
Chemical Tank	Capacity	6 US Gallons
Waste Tank - Polyethelyne	Gross Capacity	100 US Gallons
	Capacity At Shutoff	86 US Gallons
Waste Tank – Stainless Steel	Gross Capacity	130 US Gallons
	Capacity At Shutoff	110 US Gallons
Blower	MD Pneumatics - Tuthill Vacuum Relief Setting	5006 Tri-Lobe 13” Hg
	Gates 3/3VP475 PREDATOR POWER-BAND BELT* * Refer to manufacturer’s recommenda-tions for re-tensioned belts	4-6 lbs. @ ¼” Deflection
	Oil Type	ISO 150 Synthetic Oil Part#: MD ONE 16444-MD1-Q
	Est. Capacity	Approx. 32 oz. (1 qt)
Vacuum Hose Reel Aluminum, slide away technology	Capacity	250 ft of 2” vacuum hose
Solution Hose Reel - Live	Capacity	250 ft of ¼” solution hose
Pressure Pump	General Pump PEHT2010S (Stainless Steel)	1,500 PSI
	Fluid Capacity	General Pump Series 100 22oz

ATMI Limited Warranty
R56 SERIES

Aero Tech Manufacturing Inc (ATMI) warrants each new console and new accessories against defects in material or workmanship under normal use and service.

ATMI's obligation under this warranty shall be to furnish parts and labor for the repair or replacement of the product found to be defective in material or workmanship during the warranty period. Warranty coverage shall begin on the date of installation. Labor is covered at ATMI's approved labor rate. **The warranty registration form must be completed and submitted within 10 days of the installation.** The warranty coverage period is as follows:

ATMI Warranty Coverage

Component	Parts	Labor
Frame	7 Years	7 Years
Blower Cradle	7 Years	7 Years
Silencer Cradle	7 Years	7 Years
Covers	5 Years	5 Years
Fresh/Waste Water Tanks	5 Years	5 Years
Hose Reel	5 Years	5 Years
Hose Reel Drive System	5 Years	5 Years
Heat Exchangers	5 Years	5 Years
LED Display & PDM	5 Years	5 Years
Solution Pump**	2 Years	2 Years
Vacuum Blower**	2 Years	2 Years
Engine**	2 Years	2 Years
Miscellaneous*	2 Years	2 Years
Notes: *Miscellaneous components consist of the water pressure regulator, solution pump clutch, wetted fittings, belts, hoses, and external engine bearings **As provided by the original manufacturer		

Items not covered by warranty: normal wear items such as disposable filters, lubricants/oils, and coated finishes.

The warranty shall not apply to repairs resulting from equipment modification, improperly installed or used, damaged by the use of harsh chemicals, damaged due to hard water scaling or exposure to freezing temperature conditions.

All warranty repairs must be pre-authorized by an ATMI representative prior to any repair work. ATMI will replace the item and pay ground shipping costs. ATMI will request that the defective part is returned to ATMI for inspection and final warranty determination. Parts that are not returned will not be covered under warranty. Any product that is returned to ATMI shall be packaged in a manner sufficient to prevent damage in shipment.

The above warranties are in lieu of all other warranties, expressed or implied, oral or written, statutory or otherwise, including any implied warranty of merchantability or fitness for a particular purpose. **ATMI shall not be held responsible for the specific application to which the machine is applied, including but not limited to compatibility with other equipment.**

All statements, technical information and recommendations relating to any product furnished by ATMI is believed to be reliable, but does not constitute a guarantee or warranty.

ATMI shall not be liable to the end user(s) or any other party for lost profits, diminution of goodwill or any other special or consequential damages whatsoever with respect to any claim.

No waiver, alteration, addition, or modification of the foregoing warranties shall be valid unless made in writing and signed by an authorized agent of ATMI.

ATMI reserves the right to change its warranty policy without notice.

How Do I Receive Service If There Is a Concern?

To obtain the benefits of the Truck Mount warranty available to you, please contact your authorized ATMI authorized service center dealer (each, a "Service Center") to schedule an appointment and provide information in regards to your concern. The Service Center will inspect the Truck Mount for any defect in material/craftsmanship and will contact ATMI for verification of the warranty, if necessary. Proof of proper maintenance may be required before any warranty service is provided. Find your local Service Center by calling 866-390-2376.

What ATMI Will Do:

During the Warranty Period, if a defect in materials or workmanship in any Truck Mount is identified by a Service Center, such Service Center may (i) repair or replace the defective part at no cost to you; or (ii) repair or replace the defective part and return such defective part to ATMI and invoice you for any replacement part. If upon inspection of the applicable part by ATMI it is determined that the applicable part is defective, then ATMI shall reimburse you for the cost of the replacement part. If upon inspection of the part by ATMI it is determined that there is no defect or the defect resulted from misuse, a Prohibited Use (defined below), Exclusion (defined below) or otherwise not covered within the scope of this warranty, you shall pay the applicable invoice for the replacement part and reimburse ATMI for any and all applicable shipping costs.

What This Warranty Does Not Cover:

The following are some examples of what this warranty does not cover (each, an "Exclusion"). For the purpose of clarity, the following list is not comprehensive:

A. Defects due to misuse, alteration, negligence, accident, and improper maintenance, storage or repair of the Truck Mount.

B. Defects arising from the use of a Truck Mount in a manner that is not in compliance with the instructions and specifications provided by ATMI for its use.

C. Normal wear maintenance items such as air and oil filters, lubricants, spark plugs, and any additional tune up parts.

D. Paint and labeling are not covered under warranty.

E. Truck Mount modification or damage by the use of improper solutions/chemicals, hard water scaling, or exposure to freezing* temperature conditions.

NOTE: Supporting service/maintenance documentation may be required.

Use of Parts Not Approved by ATMI Will Void All Warranties.

Following are examples of actions with respect to certain parts that would void the warranty (each, a "Prohibited Use"). For the purpose of clarity, this is not an exclusive list; any action of misuse will void the warranty.

BLOWER

- Failure to maintain proper oil levels, or to use the correct oil as recommended.
- Failure to maintain safeguard systems such as the waste tank filter screen, vacuum safety relief valve and waste tank automatic shut-off system.
- Allowing liquid or foam to pass through blower.

HIGH PRESSURE WATER PUMP

- Failure to maintain proper oil level and oil changes as recommended.
- Failure to protect pump[s] against freezing*.
- Failure to use water softener in Hard Water Areas (defined below).
- Use of cleaning solutions as may be prohibited by ATMI.

WASTE TANK

- Failure to properly maintain filters and to clean tank as recommended by the manufacturer.
- Failure to maintain vacuum relief valve in tank.
- Failure to use proper solutions.

SOLUTION SYSTEM

- Failure to use proper solutions.
- Failure to operate the Truck Mount with proper filters.
- Failure to protect against freezing*.

HEAT EXCHANGE SYSTEM

- Over-pressurization of the system (recommended maximum working pressure -1,000 psi).
- Failure to protect against freezing*.

HARD WATER DEPOSITS

- Failure to use or maintain a water softening system with TruckMounts operating in designated "Hard Water Areas" (3.0 or more grains per gallon/60 parts per million).

*FREEZING TEMPERATURES (32°F/0°C).

Additional notes:

Transportation of hazardous waste or contaminated equipment is subject to various laws and regulations. In returning any Truck Mount, part or accessory under this limited warranty, the end user must certify in writing that the Truck Mount, part or accessory, as applicable, being returned has not been used for handling, clean up, or disposal of hazardous waste or hazardous materials. If the Truck Mount, part or accessory, as applicable, being returned has been used for handling, clean up, or disposal of hazardous waste or hazardous materials, then the end user must have the Truck Mount, part or accessory, as applicable, decontaminated by licensed and qualified decontamination professionals and provide written certification of this decontamination signed by the decontamination professionals. Each such Truck Mount, part or accessory is to be returned only to the local Service Center for Warranty service along with decontamination certification.

The above warranties are in lieu of all other warranties expressed or implied, oral or written, statutory or otherwise, including any implied warranty of merchantability or fitness for a particular purpose and you hereby acknowledge and waive all such other warranties. ATMI shall not be responsible for the specific application to which the Truck Mount is applied, including but not limited to compatibility with other equipment. All statements, technical information and recommendations relating to any product furnished by ATMI is believed to be reliable but does not constitute a guarantee or warranty.

BUYER UNDERSTANDS, ACKNOWLEDGES AND AGREES THAT THE REMEDIES PROVIDED UNDER THIS LIMITED WARRANTY ARE THE SOLE AND EXCLUSIVE REMEDIES AVAILABLE TO THE BUYER. ATMI WILL NOT BE LIABLE FOR ANY OTHER OR ADDITIONAL DAMAGES, INCLUDING BUT NOT LIMITED TO INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE FURNISHING, PERFORMANCE, USE OF OR INABILITY TO USE THE Truck Mount. ANY EXTENSIONS OF OR MODIFICATIONS MADE TO THIS WARRANTY BY A DEALER/DISTRIBUTOR OF ATMI ARE THE SOLE RESPONSIBILITY OF THE DEALER/DISTRIBUTOR.

ATMI reserves the right to change its warranty policy without notice.

Questions about this warranty or your equipment? Please reach out to ATMI at 866-390-2376.

SECTION TWO: INSTALLATION

⚠WARNING

This Truck Mount must be bolted to the floor of the vehicle by an authorized ATMI INSTALLER. Installation Responsibilities

- Ensure proper payload capacity for your vehicle. It is the distributor's and owner's responsibility to verify that the equipment package does not exceed the vehicle's payload capacity.
- Ensure installation of an approved fuel tap system and through-floor fittings as provided by ATMI. Ensure proper connection of the fuel lines.
- Proper placement of the Truck Mount, waste tank, solution tank, and accessories in the vehicle and securing them with bolts and back up plates. The distributor should have signed off that the owner is in agreement with the layout.
- Ensure proper connection and installation of the battery. Verify that the battery is in type and code.
- Check the engine, vacuum blower, and pump oil levels prior to starting the Truck Mount.
- Start and operate the Truck Mount and verify that all systems function properly after installation. Refer to installation checklist.
- Ensure the document package is returned to ATMI within 15 days of install. Warranty will be voided without this document.

INSTALLATION REQUIREMENTS

Prior to beginning the installation, read the ENTIRE "Installation" section of this Manual. Due to the weight of the Truck Mount package, please adhere to the following requirements prior to installing the Truck Mount.

CAUTION

1. DO NOT exceed the vehicle's payload capacity to help prevent hazardous driving conditions. Before installing any components into the vehicle, check with the vehicle manufacturer for the Gross Vehicle Weight Rating (GVWR). GVWR is the maximum allowable combined weight of the vehicle and cargo, including all passengers, fuel, fluids and accessories.

   Example: If the GVWR for a vehicle is 9,600 lbs. and the vehicle has a base curb weight of 6,406 lbs., this leaves a payload capacity of 3,194 lbs. (GVWR - Curb Weight = Payload Capacity).
2. ATMI recommends all flooring materials do not absorb water to prevent rust and corrosion of the vehicle floor.
3. Insulation under rubber mats should be removed prior to installation of the Truck Mount.

LIFTING THE TRUCKMOUNT INTO THE VEHICLE

Because the console weighs 950 lbs., a forklift is necessary to place the Truck Mount into the vehicle. Position the forks under the Truck Mount from the front and make certain that the forks are spread to insert into the frame slots.

POSITIONING THE TRUCKMOUNT INTO THE VEHICLE

Vehicles vary in size and openings. Owners may have a different preference for where in the vehicle they want their Truck Mount positioned. ATMI strongly recommends a side door installation for the Truck Mount. We do NOT recommend a rear door installation.

1. Ensure that enough space is provided to assure adequate engine ventilation as well as room for service and maintenance.
2. Operating weight of the complete installation (which includes water weight) with waste tank and ALL accessories MUST NOT exceed the vehicle's axle weight limit. Please refer to SYSTEM SPECIFICATIONS in Section One for standard Truck Mount and waste tank operating weight.

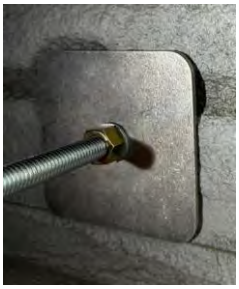
FASTENING DOWN THE TRUCKMOUNT AND WASTE TANK

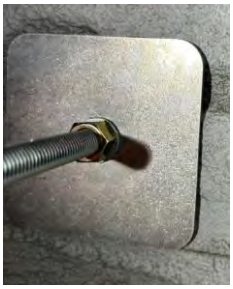
Prior to drilling any holes in the vehicle floor, ensure that while drilling, you will not damage the fuel tank, fuel lines, or any other vital components which could affect the safety or operation of the vehicle.

- Secure the console and waste tank with mounting bolts through the provided mounting tabs.
- Using the provided mounting hardware kit: Install the provided mounting plates underneath the vehicle floor. Use the plates where space is available. Insert washers through the console and waste tank mounting holes. The two 5/16-18 x 6 in. hex head cap screws are provided if the Truck Mount is being installed into a Ford Transit. Screw the provided 3/8-16 hex head lock nuts on to the mounting bolts and tighten until the console and waste tank are firmly attached to the vehicle floor.

⚠WARNING

Do not alter or modify your Truck Mount in any way. Use only replacement parts authorized by ATMI. Modifications or use of unapproved parts could create a hazard and will void your warranty. Contact your authorized ATMI dealer for assistance.





INSTALLATION OF FUEL LINES

The Vehicle fuel lines should NOT be spliced under ANY circumstances. Severe injury or fatality

- When routing fuel lines, DO NOT configure the hoses in any location where the hoses, or vehicle could be damaged.
- All fuel lines must meet CARB TIER III and EPA PHASE 3 low permeability requirements.
- Avoid contact with moving parts, areas of high temperature, brake lines, fuel lines, catalytic converters, exhaust pipes, mufflers or sharp objects.
- Fuel pump must be mounted in a horizontal position as near as possible to the fuel supply, and not located near any heat sources.
- Excess heat from exhaust or other heat sources may cause the fuel pump to malfunction.

FUEL LINE BULKHEAD INSTALLATION

1. Inside the vehicle, select an appropriate location on the vehicle floor away from operator or maintenance traffic and away from contact with any accessories or tools while in use or transit. Make sure your location is within adequate reach of your supply of fuel hose from the fuel manifolds in the finished assembly.
2. Drill one 3/4 inch hole through the vehicle floor at the location chosen for the bulkhead connector.
3. Install the bulkhead connector by inserting the fitting and tightening the nut and lock washer on the opposite side of the vehicle floor.
4. Inside the vehicle, attach the hose fitting and connect the fuel line from the engine. Use hose clamps as needed when routing the fuel hose in a safe and clean manner.
5. Drill a hole, two hole sizes larger to pass the wiring harness connectors through near the bulkhead. Use a wire loom to prevent chaffing.

FUEL PUMP ASSEMBLY INSTALLATION

1. Remove the housing cover from the fuel pump assembly. Attach the ring terminals of the supplied fuel pump extension harness to the fuel pump. Connect the white wire to the positive (+) terminal and the black wire to the negative (-) terminal.
2. Attach the appropriate connector from the wiring harness 47-175 to the fuel return manifold.
3. Cut a slit in the grommets and slip over the wiring harnesses in an appropriate location to route back through the wall of the box.
4. Install the return fuel line onto the fuel return manifold. Use the internal clamps to secure the return line inside the housing. Route the return line through the grommet in the side of the housing. Do not trim the return line until installing the check valve.
5. Locate an appropriate location for the fuel pump assembly housing to mount underneath the vehicle that will not cause damage to the vehicle or compromise the fuel line routing or components. Use the supplied self-drilling screws to install the cover of the fuel pump housing to the vehicle.
6. Attach the main section of the fuel pump assembly to the lid using the eight supplied screws and washers. Blue Loctite is recommended to prevent vibration from loosening the screws.

NOTE: Install the fuel pump assembly close to the fuel source.

FUEL SUPPLY & RETURN LINE INSTALLATION

Refer to the transfer flow kit instructions found with the appropriate kit for your vehicle.

1. Using the fuel line from the transfer flow kit, connect the outlet fitting on the fuel return manifold to the bulkhead fitting underneath the vehicle.
2. Route both wiring harnesses through the hole, holes or slot you have drilled in the vehicle floor. Apply a grommet and or wire loom at the point of entry to avoid damage from the sharp edge of the vehicle floor.
3. Connect the check valve in line with the return line near the fuel cell with the flow arrow pointed towards the fuel supply.
4. Connect the fuel filter in line with the supply line between the fuel supply and fuel pump with the flow arrow pointed towards the fuel pump.
5. Ensure that all hose clamps are properly tightened.
6. Secure all lines tightly and carefully, avoiding contact with any sharp edges. Use industrial zip ties, protective sleeves and grommets as necessary to shield exposed fuel hoses and wiring.

NOTE: The return fuel line needs to have enough length to properly cool the fuel temperature. If needed, coil two or three feet of return line under the vehicle in a safe location.

NOTE: ATMI recommends using only OEM parts. Using non OEM parts may damage critical components.

FUEL REQUIREMENTS

Use unleaded fuel ONLY. Use only fresh, clean unleaded gasoline. DO NOT use high octane gasoline. Gasoline engines should use 87 octane or higher. E85 fuel is not permitted for use in the gasoline engine. Use of any other fuel may result in your engine no longer operating in compliance with CARB or EPA emissions requirements.

CONSOLE TO WASTE TANK CONNECTIONS

1. Connect the two 3ft long 2in vacuum hoses from the pre-filter box to the waste tank inlet.
2. Connect the 4in aluminum tube to the blower inlet and waste tank inlet.

Hoses from the waste tank to the pre-filter box.

Aluminum tube to the blower inlet and waste tank inlet.

SOLUTION REQUIREMENTS

Only use approved ATMI approved solutions through your Truck Mount.

POWER REQUIREMENTS

Group 24 batteries are recommended as a Group U1 battery does not have enough capacity to power the Truck Mount if any additional powered accessories are installed. A Group 24 battery box and post battery terminals are provided in the installation kit. To use the post terminals, remove one screw from the terminal and insert the ring terminal of the battery cable. Reinstall screw through the ring terminal.

WATER REQUIREMENTS

Local Water Precautions & Hard Water Advisory

The quality of water varies greatly throughout the TruckMounted States and Canada. Many areas have an excess of minerals in the water which results in what is commonly called "hard water." These minerals tend to adhere to the insides of heater coils and other parts of the TruckMounts causing damage and a loss of cleaning effectiveness. This influences the reliability and efficiency of equipment in direct proportion to the level of hardness. BFG recognizes that any hard water deposits which might occur within the water system of our TruckMounts is a serious problem. The precision technology of Truck Mount heat exchanger systems is intolerant of any foreign material. Hard water deposits will ultimately decrease the performance of the system and are expected to seriously lower the reliability of the Truck Mount.

Owner is responsible for using water that is below 3.0 grains or more per gallon when operating within "Hard Water Areas." See Figure 1 for more details. Failure to do so may void warranty and effected parts. If a water softener is used, it must have a flow capacity of at least five (5) gallons per minute (GPM) or greater, without any hose constrictions.

Water Softener

Using a Water Softener System is highly recommended by ATMI because it helps prevent build-up of minerals on the inside of your Truck Mount, lengthening the life of your Truck Mount. Not only does the water softening system help prolong the life of your Truck Mount and its parts, you will have the benefits of reduced solution costs and continued cleaning efficiency with more effective solutions. Follow the recommendations of your water softener for installation and use.

Hard Water Area Map

The hard water map, shown in Figure 1, defines hard water areas in the continental TruckMounted States which compromise fluid related components such as hoses, fittings, heaters, pumps, valves and water-cooled engines. For other countries, hard water area maps can be obtained from geological societies.

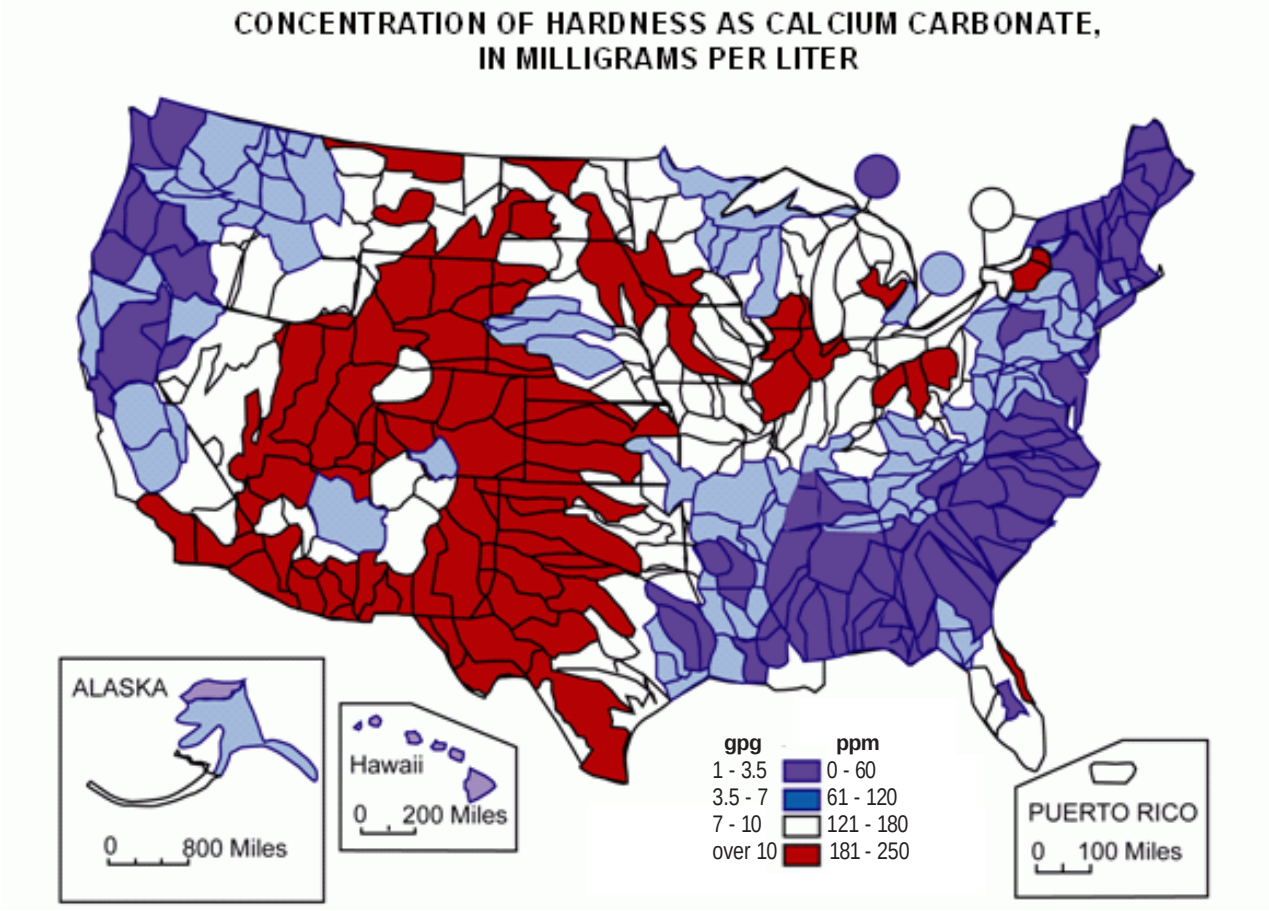


Figure 1 Water Hardness Areas. Map courtesy of USGS https://www.usgs.gov/media/images/map-water-hardness-united-states

The map shown in Figure 1 is provided for general reference only. Water hardness in your geographical location should be confirmed by testing.

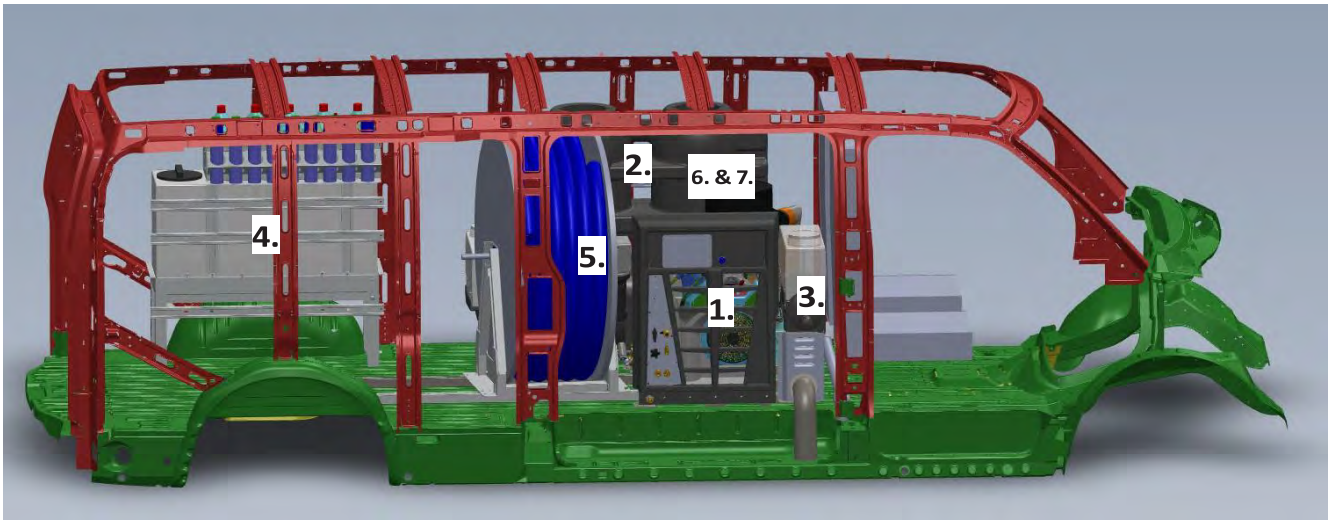
Waste Water Disposal Advisory

Always follow the safety precautions when disposing of waste material in accordance with all local, state/provincial, and national requirements. Not all produR SERIES require the same disposal procedure. Generally, most produR SERIES can
be disposed of in a water-treated sewer line. Other produR SERIES must be disposed of at a registered EPA site. Section thirteen of the Material Safety Data Sheet (MSDS) explains proper product and waste disposal procedures.

IN ACCORDANCE WITH EPA, STATE AND LOCAL LAWS, DO NOT DISPOSE OF WASTEWATER INTO GUTTERS, STORM DRAINS, STREAMS, RESERVOIRS, ETC. The penalties for non-compliance can be serious. Always check local laws and regulations to be sure you are in compliance before disposing of waste-water.

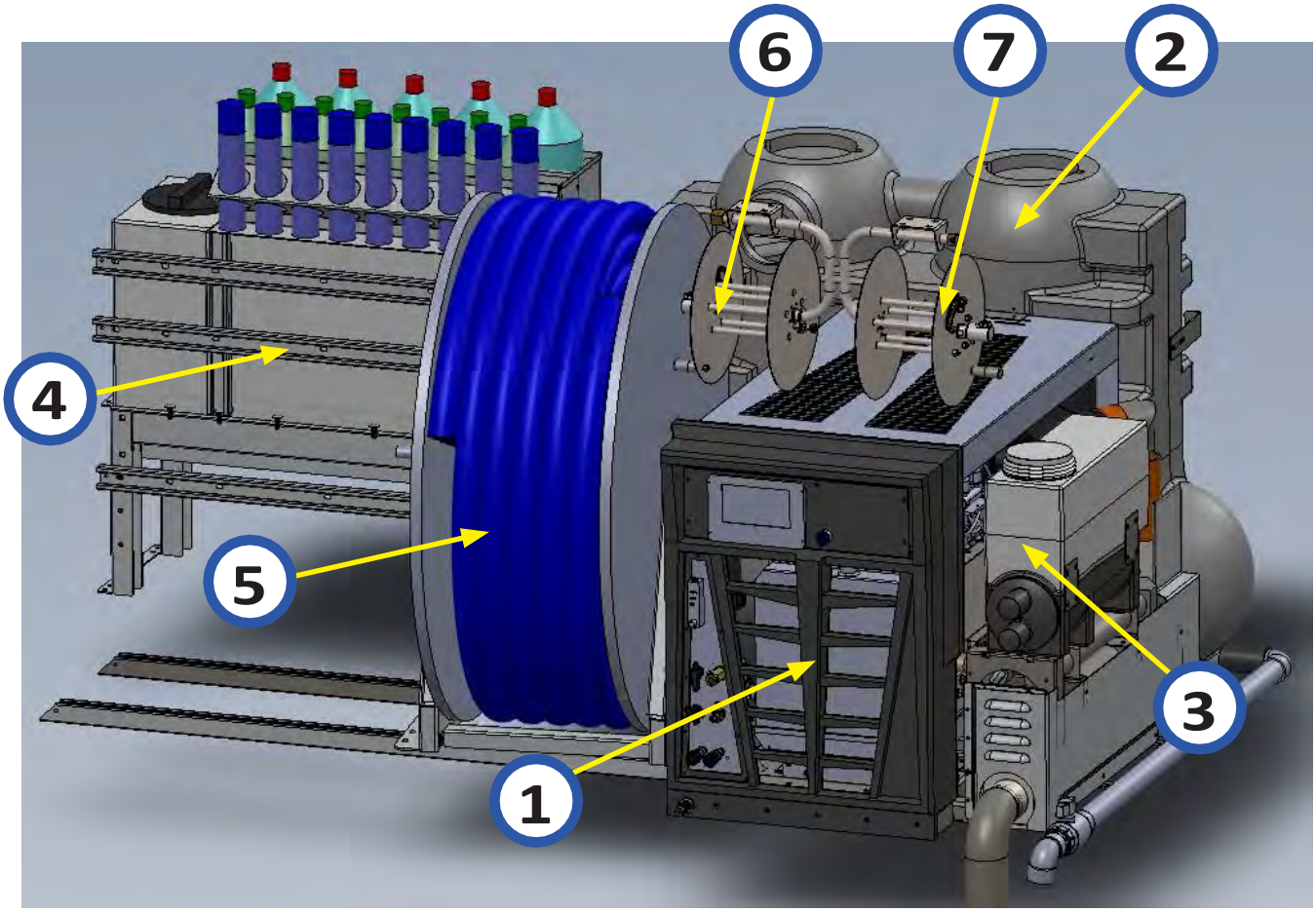
RECOMMENDED VAN LAYOUT

For more specific details on the needs and specifications for the installation of the Truck Mount, view the Installation section of this Manual.



Items included with the installation:

1. Truck Mount Console
2. Waste Tank (positioned behind Truck Mount)
3. Chemical Tank
4. Solution Tank
5. Electric Vacuum Hose Reel
6. Solution Hose Reel
7. Garden Hose Reel



Items included with the installation:

1. Truck Mount Console
2. Waste Tank
3. Chemical Tank
4. Fresh Water Tank
5. Electric Vacuum Hose Reel
6. Solution Hose Reel
7. Garden Hose Reel

SECTION THREE: OPERATING INSTRUCTIONS

Follow the instructions below and on the display screen to start up Truck Mount.

START-UP PROCEDURE - EXTRACTION

Perform all daily and periodic maintenance as specified in Section 4 of this Manual.

1. Park the van with the Truck Mount in a well-ventilated area to avoid toxic fumes from entering the building. If this warning is not heeded, personal injury and fatality can result.
2. Check the following:
   - Check the fuel tank prior to starting each job, ensure there is adequate fuel (Truck Mount will run out of fuel at ~¼ tank).
   - Check Oil Levels - Verify that oil levels are full on all components of the Truck Mount and coolant levels are correct in the reservoir and radiator before running.
   - Check filters - Inspect the vacuum inlet filter and strainer baskets in the pre-filter box and waste tank.
   - General Inspection - Verify there are no water or oil leaks, loose screws, etc.
   - Verify waste tank is empty.
3. Make sure the waste tank drain valve is closed when operating the Truck Mount.
4. Turn system switch to "ON."

ON THE DISPLAY (buttons):

5. Push the ignition button.
6. Push the throttle button.
7. If you want to use the Automatic Pump Out (APO), push the APO button (it will turn it from off to on).
8. Connect the vacuum hose to the vacuum inlet strainer.

NOTE: The Truck Mount will automatically shut down when it reaches its full capacity due to the float switch located inside the waste tank. When this occurs, turn the System switch to "OFF" and empty the waste tank. Then, turn the Truck Mount back on and continue to extract.

NOTE: Never use a waste pump outlet hose as a water inlet hose. Use only clean hoses for water supply.

NOTE: Read and comply with the preparation section of this Manual entirely before starting the Truck Mount.

START-UP PROCEDURE - CARPET/UPHOLSTERY

Perform all daily and periodic maintenance as specified in Section 4 of this Manual.

1. Park the van with the Truck Mount in a well-ventilated area to avoid toxic fumes from entering the building. If this warning is not heeded, personal injury and fatality can result.
2. Check the following:
   - Check the fuel tank prior to starting each job, ensure there is adequate fuel (Truck Mount will run out of fuel at ~¼ tank).
   - Check Oil Levels - Verify that oil levels are full on all components of the Truck Mount and coolant levels are correct in the reservoir and radiator before running.
   - Check filters - Inspect the vacuum inlet filter and strainer baskets in the pre-filter box and waste tank.
   - General Inspection - Verify there are no water or oil leaks, loose screws, etc.
   - Check Your Solution Levels - Check your solution tank to make sure you have enough solution mixed to finish the job.
   - Verify waste tank is empty.
3. Make sure the waste tank drain valve is closed when operating the Truck Mount.
4. Set incoming solution valve lever to Carpet/Upholstery.
5. Connect the solution hose to the quick connect Carpet/Uph. Cleaning Solution Outlet. (see Figure 2)
6. Turn system switch to "ON."

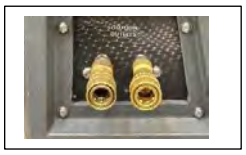


Figure 2

ON THE DISPLAY (buttons):

7. Push the ignition button.
8. Push the throttle button.
9. Push the pressure pump button and select "ON" or "ON WITH HEAT."*
   If you select "ON WITH HEAT" - Push heat button, this will allow you to adjust the preset temperature and to adjust the heat by 10 degrees with + or - buttons.
10. Block off the vacuum inlet to the waste tank and allow Truck Mount to warm up for 2-3 minutes.
11. If you want to use the Automatic Pump Out (APO), push the APO button (it will turn it from off to on).
12. Adjust Pressure Regulator to:
    - Carpet/Upholstery 300-500 PSI
    - DO NOT OPERATE BELOW 300 PSI
13. Applying Carpet Chemical - Turn Chemical Valve to ON and adjust flow rate valve to 4 GPH.
14. Un-cap vacuum and then connect vacuum and solution hose to your cleaning tool.
15. Connect the vacuum hose to the vacuum inlet strainer.

NOTE: The Truck Mount will automatically shut down when it reaches its full capacity due to the float switch located inside the waste tank. When this occurs, turn the System switch to "OFF" and empty the waste tank. Then, turn the Truck Mount back on and continue to clean.

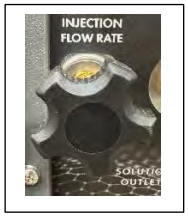
NOTE: Never use a waste pump outlet hose as a water inlet hose. Use only clean hoses for water supply.

NOTE: Read and comply with the preparation section of this Manual entirely before starting the Truck Mount.

**NOTE: If the Truck Mount does not build water pressure after 5 seconds, check for adequate water supply. See "Loss of Water Pump Pressure" in the Troubleshooting section of this Manual.*

CHEMICAL

PRIMING & ADJUSTING THE SOLUTION FLOW



ATMI recommends that the Chemical pump be primed whenever the solution pump is on. This eliminates possible pressure fluctuations and water pump pulsations related with running the Chemical pump dry.

The Chemical prime and inlet tube and the solution inlet tube should be inserted into the Chemical Tank before starting the Truck Mount. When inserting the chemical tube into the Chemical Tank, ensure that it stays submerged in Chemical, as the Chemical pump will not function if air is allowed to enter the inlet line.

With the engine running in idle, water supply connected and pressure pump switch in the ON position:

1. Start with normal start-up procedures. Verify solution pump is on and Chemical tank is full.
2. Turn the 3-way Chemical selector valve located on the control panel to the PRIME position. Allow Chemical to circulate. After all air bubbles have been removed from the Chemical Flow Meter, allow it to prime for an additional 30 seconds before turning the valve to the ON position.
3. While spraying solution out of the cleaning tool, set/adjust the flow to 4 GPH with the Injection Flow Rate valve.
4. Clean as normal.
   NOTE: if the Chemical tank is run dry, repeat the steps above.

AUTOMATIC PUMP OUT (APO)

1. If your Truck Mount is equipped with an optional automatic waste pump, connect one end of the 5/8 in. or larger garden hose to the pump-out connection and the other end to an acceptable waste disposal.
2. Turn the pump-out switch located on the front console control panel to the ON position. The waste pump will now operate automatically throughout the cleaning period.

⚠WARNING DO NOT use an outlet hose that is smaller than 5/8 in. in diameter.

NEVER use a waste pump hose as a water inlet hose.

NEVER dispose of wastewater in a storm drain, water way or on ground areas. Always dispose of waste in accordance with local, state and federal laws.

START-UP PROCEDURE - HARD SURFACE

Perform all daily and periodic maintenance as specified in Section 4 of this Manual.

1. Park the van with Truck Mount in a well-ventilated area to avoid toxic fumes from entering the building. If this warning is not heeded, personal injury and fatality can result.
2. Check the following:
   - Check the fuel tank prior to starting each job, ensure there is adequate fuel (Truck Mount will run out of fuel at ~¼ tank).
   - Check Oil Levels - Verify that oil levels are full on all components of the Truck Mount and coolant levels are correct in the reservoir and radiator before running.
   - Check filters - Inspect the vacuum inlet filter and strainer baskets in the pre-filter box and waste tank.
   - General Inspection - Verify there are no water or oil leaks, loose screws, etc.
   - Connect Fresh Water Supply inlet hose - Flush out any debris from the faucet and hose. The water box must be full prior to starting the Truck Mount.
   - Verify waste tank is empty.
3. Make sure the waste tank drain valve is closed when operating the Truck Mount.
4. Set incoming solution valve lever to Hard Surface.
5. Connect the solution hose to the quick connect
   For hard surface cleaning, (see Figure 3)
6. Turn system switch to "ON."

Figure 3

ON THE DISPLAY (buttons):

7. Push the ignition button.
8. Push the throttle button.
9. Push the pressure pump button and select "ON" or "ON WITH HEAT."*
   If you select "ON WITH HEAT" - Push heat button, this will allow you to adjust the preset temperature and to adjust the heat by 10 degrees with + or - buttons.
10. If you want to use the Automatic Pump Out (APO), push the APO button (it will turn it from off to on).
11. Adjust Pressure Regulator to:
    - Hard Surface 450-1000 PSI
    - DO NOT OPERATE ABOVE 1200 PSI
12. Un-cap vacuum and then connect vacuum and solution hose to your cleaning tool.
13. Connect the vacuum hose to the vacuum inlet strainer.

NOTE: The Truck Mount will automatically shut down when it reaches its full capacity due to the float switch located inside the waste tank. When this occurs, turn the System switch to "OFF" and empty the waste tank. Then, turn the Truck Mount back on and continue to clean.

NOTE: Never use a waste pump outlet hose as a water inlet hose. Use only clean hoses for water supply.

NOTE: Read and comply with the preparation section of this Manual entirely before starting the Truck Mount.

**NOTE: If the Truck Mount does not build water pressure after 5 seconds, check for adequate water supply. See "Loss of Water Pump Pressure" in the Troubleshooting section of this Manual.*

SHUT DOWN PROCEDURE BETWEEN JOBS

1. Remove the Vacuum Hose. Disconnect hoses, quick connects, etc.
2. Push throttle button on the display which will idle the Truck Mount down.
3. Push ignition button to turn the Truck Mount off.
4. Turn System switch to "OFF."
5. Drain the waste tank in an appropriate location if needed.

IN ACCORDANCE WITH EPA, STATE AND LOCAL LAWS, DO NOT DISPOSE OF WASTEWATER INTO GUTTERS, STORM DRAINS, STREAMS, RESERVOIRS, ETC. The penalties for non-compliance can be serious. Always check local laws and regulations to be sure you are in compliance.

SHUT DOWN PROCEDURE AT THE END OF THE DAY

1. Remove the Vacuum Hose. Disconnect hoses, quick connects, etc.
2. Push throttle button on the display which will idle the Truck Mount down.
3. Push ignition button to turn the Truck Mount off.
4. Turn System switch to "OFF."

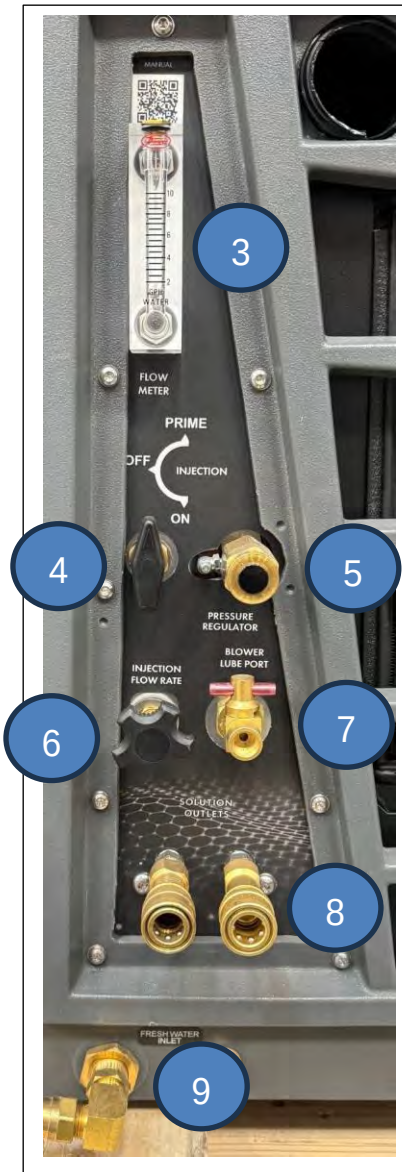
Drain the waste tank in an appropriate location.

IN ACCORDANCE WITH EPA, STATE AND LOCAL LAWS, DO NOT DISPOSE OF WASTEWATER INTO GUTTERS, STORM DRAINS, STREAMS, RESERVOIRS, ETC. The penalties for non-compliance can be serious. Always check local laws and regulations to be sure you are in compliance.

5. Turn System switch to "ON."
6. On the display, Push Ignition button.
7. Push throttle button to increase Truck Mount up to operating speed.
8. Block off the vacuum inlet to the waste tank for 1 minute (This will aid in removing moisture inside the blower).
9. After 1 minute, spray TKX LUBRICANT for 3 seconds into the vacuum lube port. Wait for 1 minute. See Lubing the Blower in the Maintenance Section for details.
10. After 1 minute, unblock the vacuum inlets and let the Truck Mount run for an additional 1 minute.
11. Push throttle button on the display which will idle the Truck Mount down.
12. Push ignition button to turn the Truck Mount off.
13. Turn System switch to "OFF."

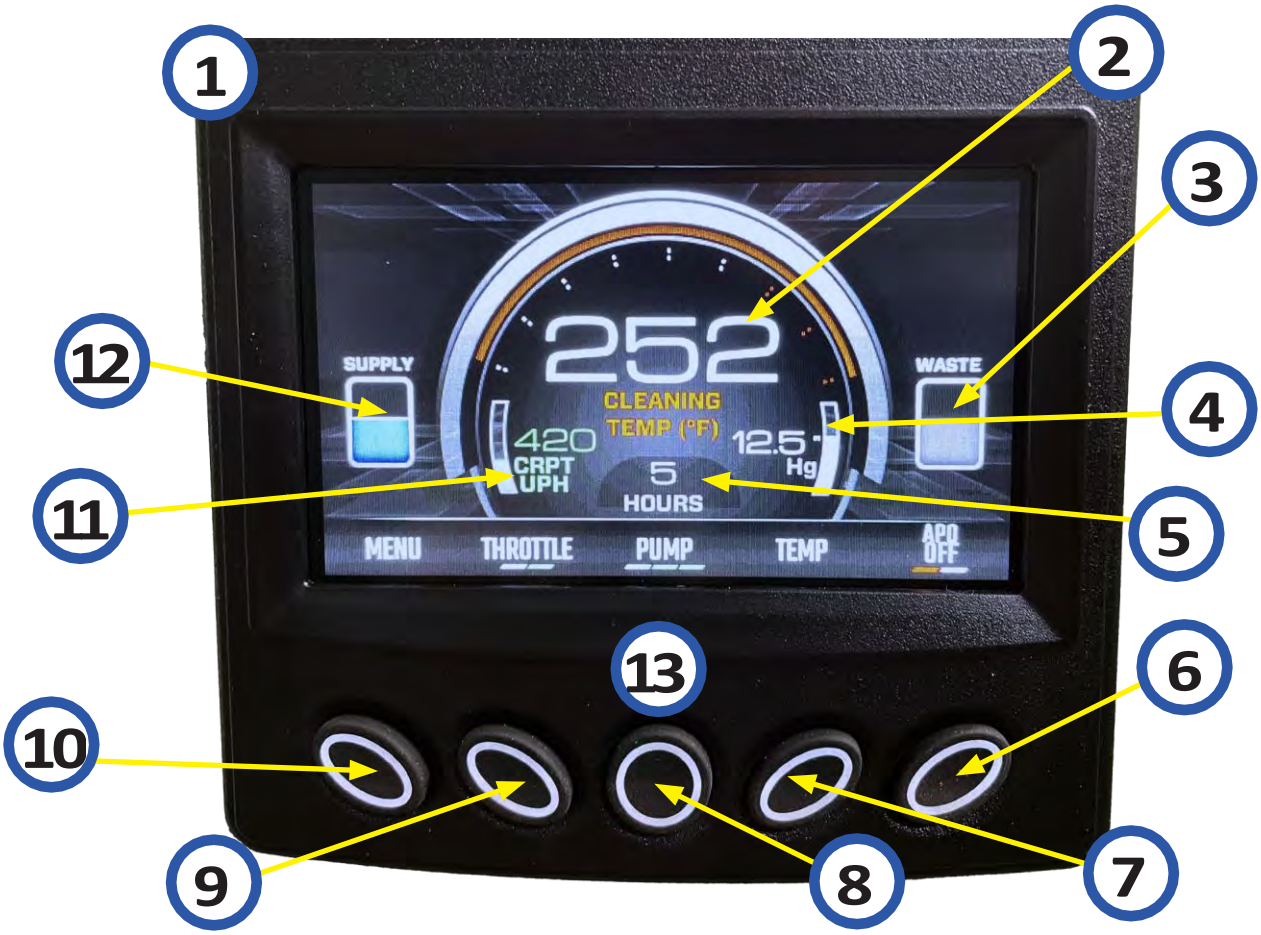
Lubing the Blower 1-3-1-1
1 minute - block the vacuum
3 seconds - spray the lube
1 minute - wait
1 minute - unblock the vacuum & run the Truck Mount

INSTRUMENT PANEL CONTROLS AND GAUGES



1. Digital Display
2. System Power ON/OFF Switch
3. Chemical Flow Meter
4. Chemical OFF/ON/PRIME Switch
5. Pressure Regulator
6. Chemical Injection Flow Rate
7. Blower Lube Port
8. Carpet & Upholstery Solution Outlet
9. Fresh Water Inlet for Hard Surface Cleaning

ALL-IN-ONE, STATE OF THE ART DISPLAY



Buttons will change depending on what menu item you have chosen.

1. Digital Display
2. Solution Temperature
(red=too hot, yellow=cleaning temp, blue=too low)
3. Waste Tank full indicator icon
4. Blower Vacuum Gauge
5. Truck Mount Hour Meter
6. Auto Pump Out Control and/or Auxiliary Button
7. Solution Temperature Control Button
8. Solution Pump OFF/ON/HEAT Button
8. Throttle Control
9. MENU - takes you to maintenance, setup, IO (Troubleshooting)status
10. Solution Pressure Gauge
11. Solution Tank empty indicator icon
12. Ignition ON/OFF Button

Maintenance Reminders:

View necessary key maintenance reminders at key intervals. Clear service interval once performed.

Auxiliary Control: Manage optional connected accessories such as compressor, interior lighting, etc.

SECTION FOUR: SERVICE & MAINTENANCE

Following a good preventative service and maintenance for your Truck Mount will ensure that your Truck Mount performs optimally, operates for a long life, and with a minimum amount of down time.

⚠WARNING DO NOT attempt to service this Truck Mount while it is running. High speed parts as well as high temperature components may result in severe injury, severed limbs, or fatality.

NOTE: Refer to the hour meter as a guide for coordinating a maintenance schedule.

⚠WARNING Turn Truck Mount off and allow to cool before performing any maintenance.

DAILY MAINTENANCE

Inspect	Inspect the Truck Mount for water and oil leaks, loose electrical connections, etc. and repair as needed.
Truck Mount Engine	Check engine oil level. Fill to proper level.
	Check coolant level in reservoir. Fill to proper level.
Blower/Vacuum Pump	Check vacuum pump sight glass oil levels on both sides. Fill to proper level. Do not overfill.
	Spray TKX lubricant into the lubrication port for 3 seconds.* *see instructions
Solution Pump	Check solution pump oil level. Fill to proper level.
Vacuum Inlet Filters	Inspect waste tank filter, clean and or replace if required.
Pre-filter Strainer Basket	Empty and clean baskets in the pre-filter box and waste tank.
Waste Tank	Inspect and rinse the waste tank
	Leave lid open to allow moisture to evaporate
Fresh Water Inlet Filter	Inspect and clean
Chemical Filter	Inspect and clean
Belts	Check all belts to ensure they are properly tensioned and there are no cracks or wear
Equipment	Verify there are no towels or debris on or around the Truck-Mount and wipe down the front of the Truck Mount.
Vacuum Hoses	Rinse with fresh water. If there are odors, use Fresh-n-Free™
Waste Pump-Out (APO)	(optional equipment) Inspect and remove any debris or sediment.

HOW TO GET TO THE MAINTENANCE SCREEN

On the display visit MENU > INFO/MAINTENANCE > SERVICE INTERVAL to see your maintenance items.

NOTE: Daily maintenance items will not show on your Truck Mount's display screen.

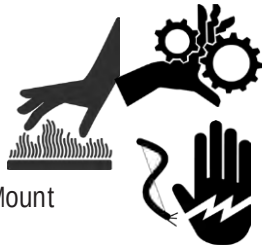
ENGINE MAINTENANCE

NOTE: For more specifics on the PSI engine, visit the PSI Engine Manual by clicking the link here.

⚠WARNING Turn Truck Mount off and allow to cool before performing any maintenance.

⚠WARNING An engine produces toxic exhaust gas, DO NOT operate in a confined area. Position the Truck Mount so exhaust will be directed away from job site. DO NOT operate equipment where exhaust may enter a building through open doors, windows, or other air intake. Exhaust fumes contain carbon monoxide which is an odorless and deadly poison that can cause severe injury or fatality. For more information go to www.P65Warnings.ca.gov

⚠WARNING Hot Surfaces. DO NOT operate equipment without all covers and guards in place. Never touch hot surfaces. Rotating Equipment. DO NOT operate equipment without all covers and guards in place. DO NOT place hands, feet, hair, clothing or any body parts near rotating or moving parts. Electrical Shock. DO NOT touch electrical wires or components while the engine is running. Disconnect the battery before servicing this Truck Mount to prevent accidental starting. Failure to follow all of these guidelines can cause severe injury or fatality.



- Check engine oil daily. Ensure that the proper oil level is maintained. Never overfill.
- Change the oil after the first 50 hours of operation. Following the first 50 hours, change the oil and filter every 150 hours or 120 days of operation, whichever comes first.

Engine Oil Capacity when changing oil and filter	~2.8 L / ~3 US qt.

OIL RECOMMENDATION

To achieve proper engine performance and durability, it is important that you only use engine lubricating oils displaying the American Petroleum Institute (API) "Starburst" Certification Mark 'FOR GASOLINE ENGINES' on the container or oils that meet the GB oil standards referenced below.
The recommended oil grades are as follows:

- SF 15W/40 GB 11121-1995 engine oil (or API SG SAE15W40 engine oil) is used above an ambient temperature -4° F/-20° C.

IMPORTANT: Oils recommended by the engine manufacturer already contain a balanced additive treatment. Oils containing "solid" additives, non-detergent oils, or low quality oils are not recommended by the engine manufacturer. Supplemental additives added to the engine oil are not necessary and may be harmful. The engine and fuel system supplier do not review, approve or recommend such produR SERIES.

COOLANT REQUIREMENTS

The engine manufacturer recommends the cooling system be filled with a 50/50 mixture of antifreeze and water. The use of DexCool "Long Life" type coolant is required. This antifreeze is typically a bright orange in color and should meet the requirements issued by PSI. Coolant should have a minimum boiling point of 300° F/149° C and a freezing point no higher than -34° F/-37° C. Do not add plain water. Add 12 ounces Water Wetter. Replace coolant per the recommended schedule.

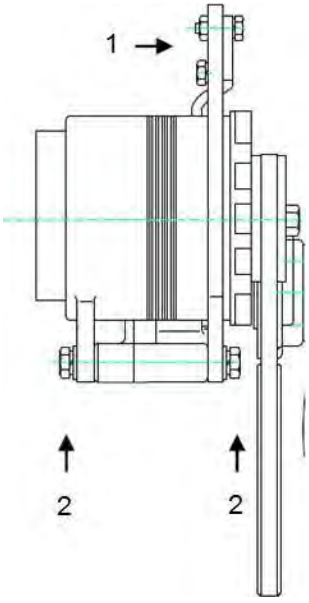
IMPORTANT: The manufacturers of the engine and fuel system do not recommend the use of "stop leak" additives to repair leaks in the cooling system. If leaks are present, the radiator should be removed and repaired or replaced.

ENGINE CONTINUED...

- Check pulley, taper-lock bushing, and set screws after the first 50 hours and again at 100 hours of operation. Re-torque these bolts. Check pulley set screws and hub screws every 500 hours thereafter.
- Ensure belts are properly tensioned after checking the torque values.
- Use a clockwise rotation until tightness is achieved.

Belt Type
Alternator Belt: Bando 4PK760 Serpentine Belt

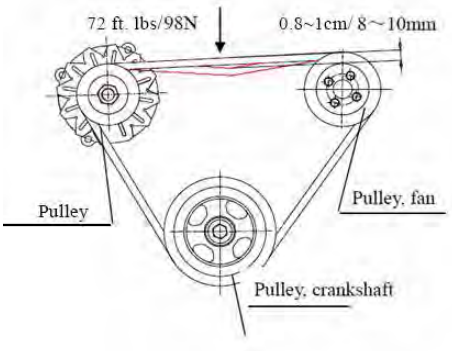
ALTERNATOR BELT REPLACEMENT (SERPENTINE BELT)



SERPENTINE BELT REMOVAL

1. Loosen lower alternator mounting bolts (2).
2. Loosen the upper alternator adjusting bolt (1).
3. Move alternator to release tension from serpentine belt.
4. Remove the serpentine belt from the pulleys.

1. Loosen two lower alternator mounting bolts.
2. Loosen the upper alternator adjusting bolt.
3. Adjust the alternator until the alternator belt meets its required tension.
4. Measure serpentine belt deflection by applying 72 ft. lbs/98 Nm to the belt between the fan pulley and alternator pulley.
5. Tighten the upper alternator adjusting bolt.
6. Tighten two lower alternator mounting bolts.



Part	50 Hours	100 Hours	150 Hours	200 Hours	250 Hours	500 Hours	1,000 Hours	2,000+ Hours
Truck Mount Engine								
General Maintenance								
Change the engine oil and oil filter	X (first 50 hours)		X change regularly every 150 hours or 120 days of operation, whichever comes first					
Inspect accessory drive belts for cracks, breaks, splits or glazing		X every 100 hours						
Inspect electrical system wiring for cuts, abrasions or corrosion					X every 400 hours			
Inspect all vacuum lines and fittings for cracks, breaks or hardening					X every 400 hours			
PCV Valve				Clean			Replace every 800 hours	
Check pulley, taper-lock bushing, and set screws to ensure they are tight	X (first 50 hours)	X every 100 hours			X every 250 hours	X every 500 hours		
Engine Coolant								
Clean debris from radiator core		X every 100 hours						
Change engine coolant							X every 800 hours	
Inspect coolant hoses for cracks, swelling or deterioration		X every 100 hours				X every 400 hours		X every 2,000 hours
Inspect radiator and hoses on the engine				X or yearly, whichever comes first				
Engine Ignition System								
Replace spark plugs. Use only OEM spark plugs. Gap the spark plugs to 0.030". Replace if excessive carbon buildup is visible.							X every 800 hours	
Check spark plug wires for cuts, abrasions or hardening							X every 800 hours	
Replace spark plug wires								as required
Fuel System Maintenance								
Inspect air cleaner				X every 200 hours or 100 hours if in dusty environment				
Replace filter element					X every 400 hours or as req. in dusty environment			
Replace fuel filter					X every 400 hours			
Leak check fuel lines					X every 400 hours			
Check air induction for leaks					X every 400 hours			

Part	50 Hours	100 Hours	150 Hours	200 Hours	250 Hours	500 Hours	1,000 Hours	2,000+ Hours
Check manifold for vacuum leaks		X			X every 400 hours			X every 2,000 hours
Drain Vaporizer oil build up			every oil change					
Check fuel hoses and clamps	X every 50 hours							
Change air filters							X every 1,000 hours	
Inspect and clean air filter element.*		X every 100 hours						
Replace in-line fuel filter on the engine - Check the fuel lines for cracking or leaking						X every 500 hours		
Truck Mount Engine								
Cylinder Head Bolt Torque - 40.5 ft/lbs	X (first 35 hours)				X every 400 hours			
Timing Belt				Inspect				Replace
Check all bolts and nuts for tightness								as required
Check the engine valve clearance Intake - 0.13-0.18 mm (Cold) Exhaust – 0.23-0.28 mm (Cold)	X (first 35 hours)				X every 400 hours			
Check fan belt condition and tension in the engine				X every 200 hours				

TRUCKMOUNT SERVICE INTERVALS

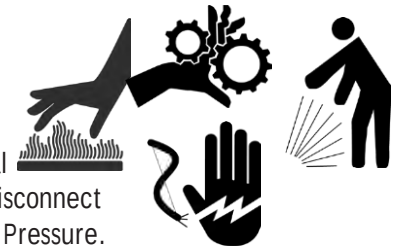
Part	50 Hours	100 Hours	150 Hours	200 Hours	250 Hours	500 Hours	1,000 Hours	2,000+ Hours
Blower/Vacuum Pump								
Change the Blower/Vacuum Pump Oil and filter	X (first 50 hours)						X change regularly every 1,000	
Check the belt for correct tension, and tension if loose. If belt is worn, replace it.	X (first 50 hours)	X every 100 hours			X every 250 hours	X every 500 hours	X every 1,000 hours	
Solution Pump								
Change the Solution Pump Oil	X (first 50 hours)						X change regularly every 1,000	
Change Pressure Pump Crankcase oil	X (first 50 hours)					X change regularly every 500		
Change the solution pump drive belt	X (first 50 hours)					X change regularly every 500		
Lubricate o-rings on the pressure regulator. Use only o-ring lubricant		X every 100 hours						
Heat Exchanger								
Descale Heat Exchanger							X every 1,000 hours	

Part	50 Hours	100 Hours	150 Hours	200 Hours	250 Hours	500 Hours	1,000 Hours	2,000+ Hours
Chemical Pump								
Re-tension all belts	X (first 25 hours)	X change regularly every 100 hours						
Change the Chemical Pump check valves							X every 1,000 hours	
Replace Solution Manifold Differential Check Valve when you rebuild the Chemical Pump							X or as needed	
Inspect packing nut on the Chemical selector metering valves and adjust as needed					X every 250 hours			
Waste Tank								
Clean and inspect Float Switches in the Waste Tank	X every 50 hours							
Re-tension all belts	X (first 25 hours)	X change regularly every 100 hours						
Inspect the vacuum relief valve. Clean and lubricate as necessary	X every 50 hours							
Check vacuum relief valve up to 13" Hg if needed. See pg. 43		X every 100 hours						
Clean and remove debris from the inlet waste tank filter	Daily							
Clean and remove debris from the blower filter in the waste tank	Weekly							
Miscellaneous Items								
Tighten bolts & nuts on all exhaust parts	X every 50 hours							
Clean battery terminals and check fluid level		X every 100 hours						
Inspect High Pressure Hoses for wear, damage, or impending rupture	X regularly inspect every 50	X (first 100 hours)						
Check fastener tightness on all components. Tighten as needed		X every 100 hours						
Check and lube inlet valve in the hard surface tank with Super Lube grease #92003 or equivalent		X every 100 hours						
Clean and remove debris from the valve strainers (solution, hard surface, Chemical tanks)		X every 100 hours						
Check the Pressure Regulator		X every 100 hours						

BLOWER/VACUUM PUMP MAINTENANCE

NOTE: Refer to the provided Blower/Vacuum Pump Operations and Service Manual for specific instructions.

⚠WARNING Turn Truck Mount off and allow to cool before performing any maintenance.



⚠WARNING Hot Surfaces. DO NOT operate equipment without all covers and guards in place. Never touch hot surfaces. Rotating Equipment. DO NOT operate equipment without all covers and guards in place. DO NOT place hands, feet, hair, clothing or any body parts near rotating or moving parts. Electrical Shock. DO NOT touch electrical wires or components while the engine is running. Disconnect the battery before servicing this Truck Mount to prevent accidental starting. Water Pressure. Water under high pressure at high temperature can cause burns. Shut down Truck Mount, allow to cool down and relieve system of all pressure before removing valves, caps, plugs, fitting, filters, and bolts. Failure to follow all of these guidelines can cause severe injury or fatality.

CAUTION DO NOT exceed 13”Hg vacuum pressure. This can cause damage to the vacuum pump.

ALTITUDE NOTICE:

NOTE: Due to temperature and altitude changes, the optimal setting for each Truck Mount must be adjusted after installation. Failure to make these adjustments may lead to poor Truck Mount performance and premature component failure.

- Lube the Blower/Vacuum Pump daily to ensure there is no damage.

To lube the Blower/Vacuum Pump, follow the following steps:

1. Turn System switch to “ON.”
2. On the display, Push Ignition button.
3. Push throttle button.
4. Block off the vacuum inlet to the waste tank (this will aid in removing moisture inside the blower).
5. After 1 minute, spray TKX LUBRICANT for 3 seconds into the vacuum lube port.
6. After 1 minute, unblock the vacuum inlets and let the Truck Mount run for an additional 1 minute.
7. Push throttle button on the display which will idle the Truck Mount down.
8. Push ignition button to turn the Truck Mount off.
9. Turn System switch to “OFF.”
   NOTE: A suction pump is required to remove all the oil from the vacuum pump.

BLOWER/VACUUM PUMP CONTINUED...

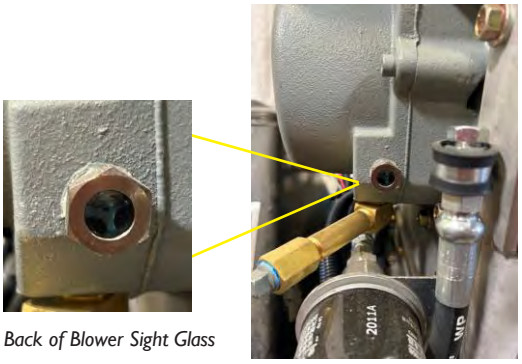
- Check the oil levels on the Blower/Vacuum Pump daily to ensure proper level is maintained. Too little oil will damage and ruin the bearings and gears. Too much oil will result in overheating. Verify there are no unusual sounds. (You can check the oil levels by viewing the sight glasses on the Front and Back sides of the Blower, see images below.)
- Change the oil after the first 50 hours of operation. Following the first 50 hours, change the oil and filter every 1,000 hours of operation.

Blower/Vacuum Pump Oil Capacity	
Shaft End (Front)	Approx. 18.3 oz. (541 mL)
Gear End (Back)	Approx. 10.2 oz. (302 mL)

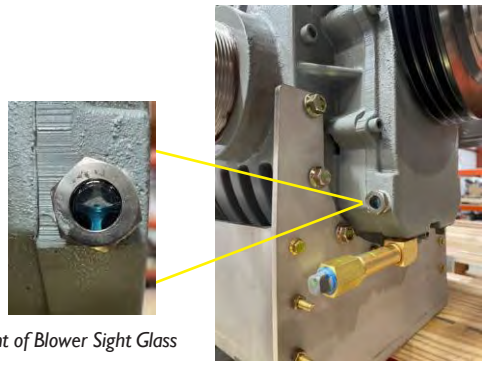
CHANGING THE BLOWER/VACUUM PUMP OIL

1. Remove one of the upper plugs to fill.
2. Place catch basin beneath the lower drain plugs.
3. Remove one of the drain plugs.**
4. Allow oil to drain completely, replace lower drain plug.
5. Slowly fill until oil has filled 75% of the sight glass.
6. Replace upper plug.
7. Repeat steps 1-6 on other side.
   Important: Do Not over fill.
8. Run Truck Mount for 5 minutes.
9. Verify oil levels are correct.

***clean magnetic plugs every oil change*



Back of Blower Sight Glass



Front of Blower Sight Glass

BLOWER/VACUUM PUMP CONTINUED...

- Check Blower/Vacuum Pump belt after the first 50 hours and again at 100 hours of operation. Check the belt and change the belt if worn every 500 hours thereafter.

Belt Tensions	Deflection	New	Used
Blower/Vacuum Pump Belt: Gates 3/3VP475 Predator Powerband Belt	3/16"	10-14 lbs.	5-8 lbs.

BLOWER/VACUUM PUMP BELT REPLACEMENT

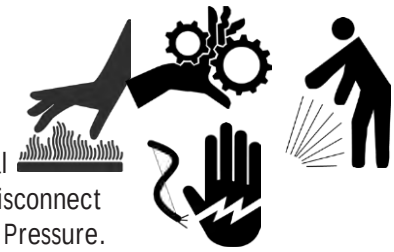
1. Remove belt guards (top and side).
2. Loosen Do Not Remove mounting bolts for blower and loosen adjusting screw.
3. Turn to loosen tension on the belt - Blower Belt Adjusting Bolt.
4. Replace belt: Gates 3/3VP475 PREDATOR POWERBAND BELT.
5. Tighten Blower Belt Adjusting Bolt until belt is tensioned correctly (3/16" deflection).
6. Tighten mounting bolts for blower/vacuum pump.
7. Replace belt guards.
8. Run Truck Mount.

NOTE: Belts need to be re-tensioned after first 50 hours of replacement.
NOTE: Confirm that the bolts in the taperlock bushing that secures the pulley are tight.

SOLUTION PUMP MAINTENANCE

NOTE: Refer to the provided General Pump Operations and Service Manual for specific instructions.

⚠WARNING Turn Truck Mount off and allow to cool before performing any maintenance.



⚠WARNING Hot Surfaces. DO NOT operate equipment without all covers and guards in place. Never touch hot surfaces. Rotating Equipment. DO NOT operate equipment without all covers and guards in place. DO NOT place hands, feet, hair, clothing or any body parts near rotating or moving parts. Electrical Shock. DO NOT touch electrical wires or components while the engine is running. Disconnect the battery before servicing this Truck Mount to prevent accidental starting. Water Pressure. Water under high pressure at high temperature can cause burns. Shut down Truck Mount, allow to cool down and relieve system of all pressure before removing valves, caps, plugs, fitting, filters, and bolts. Failure to follow all of these guidelines can cause severe injury or fatality.

- Check the oil level and the condition of the oil daily. The oil level should be level to the top of the dot on the sight glass.
- Change the oil after the first 50 hours of operation. Following the first 50 hours, change the oil and filter every 1,000 hours of operation.

CAUTION

If the oil becomes discolored or contaminated, one of the oil seals may be damaged. Do not operate the pump if the crankcase oil has become contaminated. Do not rotate the drive shaft without oil in the crankcase reservoir.

The pump should never be run dry. Running the pump dry will cause premature wear on the seals, packing and plungers. Running the pump dry for a prolonged period of time may cause damage that cannot be repaired and voids warranty.

DO NOT run the pump with frozen water in the manifold. If there is a risk of freezing, freeze guard the Truck Mount. See section 3 for freeze guarding information.

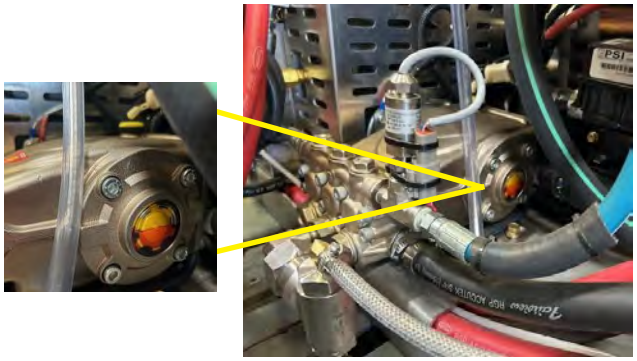
DO NOT disassemble the pump unless you are a skilled mechanic. For assistance, contact your distributor.

SOLUTION PUMP CONTINUED...

Solution Pump Oil Capacity	25 oz. approx

CHANGING THE SOLUTION PUMP OIL

1. Remove yellow fill cap.
2. Remove drain hose from holder.
3. Remove end cap and drain oil into catch basin.
4. Replace cap and drain hose to holder.
5. Fill until oil hits the red dot in the sight glass.



Belt Tensions	Deflection	New	Used
Solution Pump Belt: Gates AX38 Tripower Belt	3/16”	4-6 lbs.	3-4 lbs.

SOLUTION PUMP DRIVE BELT REPLACEMENT

⚠WARNING Turn Truck Mount off and allow to cool before performing any maintenance. Disconnect battery.

1. Remove belt guards (top and side).
2. Remove Blower/Vacuum Pump belt as stated above prior to starting to remove the solution pump belt.
3. Loosen Do Not Remove mounting bolts for solution pump and loosen adjusting screw.
4. Turn to loosen tension on the belt - Solution Pump Belt Adjusting Bolt.
5. Replace belt: Gates AX38 TRIPOWER BELT.
6. Tighten Solution Pump Belt Adjusting Bolt until belt is tensioned correctly (3/16” deflection).
7. Tighten mounting bolts for solution pump.
8. Replace belt guards.
9. Run Truck Mount.

NOTE: Belts need to be re-tensioned after first 50 hours of replacement.
NOTE: Confirm that the bolts in the taperlock bushing that secures the pulley/hub are tight

CHEMICAL METERING SYSTEM

⚠WARNING Turn Truck Mount off and allow to cool before performing any maintenance.

Check and inspect the packing nut on the Chemical selector and metering valves every 250 hours. Keeping the valve packing properly adjusted will prevent leaks and add to the overall life of the valves.

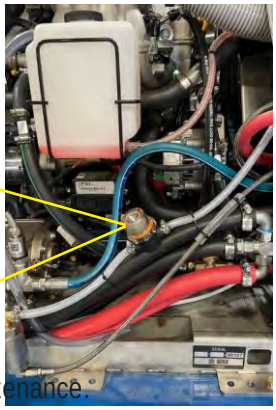
When turning the knob, there should be some resistance. If not, slightly tighten the packing nut. DO NOT over tighten. Keeping the packing properly adjusted will eliminate possible leaks and will add to the overall life of the valves.

INLINE STRAINER - SOLUTION PUMP

Water heading to the pressure pump from the solution/hard surface tank passes through an inline strainer that contains a stainless steel mesh screen. The inline strainer captures incoming debris and will restrict water flow when clogged. Inspect and clean at least once a month or as needed. Hard water deposits can build and reduce water flow.

INLINE STRAINER - CHEMICAL PUMP

Water heading to the Chemical pump from the Chemical tank passes through an inline strainer that contains a stainless steel mesh screen. The inline strainer captures incoming debris and will restrict water flow when clogged. Inspect and clean at least once a month or as needed. Hard water deposits can build and reduce water flow.



PRE-FILTER STRAINER BASKET

⚠WARNING Turn Truck Mount off and allow to cool before performing any maintenance.

The pre-filter strainer basket should be removed, inspected and cleaned daily. (May require cleaning after each job or as needed.) To remove the basket, turn the lid 90 degrees.

PRESSURE REGULATOR

⚠WARNING Turn Truck Mount off and allow to cool before performing any maintenance.

The pressure regulator holds water pressure at a preset point and bypasses the excess water.

To adjust:

With the Truck Mount running and with the cleaning tool valve closed, the display pressure gauge will read the actual pressure it is set at while you are adjusting the valve. Adjust PSI to the following for each cleaning type:

- Carpet/Upholstery 300-500 PSI
- Hard Surface 450-1000 PSI
- DO NOT OPERATE ABOVE 1200 PSI OR BELOW 300 PSI

⚠WARNING

DO NOT loosen the adjusting handle all the way (counterclockwise) or remove it while the Truck Mount is running.

Lubricate the o-rings in the pressure regulator via the zerk fitting every 100 hours.

Only use lithium type grease to lubricate o-ring.

If you do not, the stem may become seized due to inadequate lubrication. If this occurs:

1. Shut down the Truck Mount.
2. Apply grease via zerk fitting.

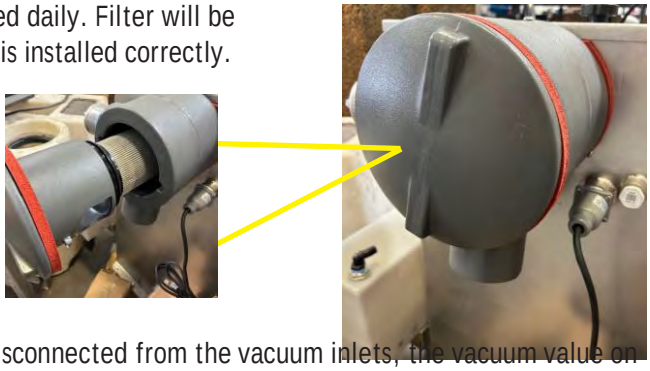
If the issue persists, follow the following steps:

1. Shut down the Truck Mount.
2. Relieve all pressure from the water system.
3. Loosen the valve nut and remove the valve stem with long nose pliers.
4. Clean and lubricate stem.
5. Reassemble pressure regulator.

WASTE TANK FILTER

⚠WARNING Turn Truck Mount off and allow to cool before performing any maintenance.

The waste tank filter should be removed, inspected and cleaned daily. Filter will be replaced as needed. When replacing the filters, ensure that it is installed correctly.



VACUUM RELIEF SYSTEM - WASTE TANK

While the Truck Mount is running and the vacuum hoses are disconnected from the vacuum inlets, the vacuum value on the display screen should read 0-5" Hg (inches of Mercury). If the gauge shows a reading greater than 5" Hg, check the filter in the waste tank and the strainer baskets in both the waste tank and pre-filter box for debris. With vacuum ports sealed, and Truck Mount running at high speed, the vacuum gauge should read 11 to 13" Hg. This is preset by the factory for the maximum safe operation. Depending on elevation, this may need to be reset at time of installation.

To protect the blower/vacuum pump from overloading and damaging itself, a vacuum relief system is installed on the waste tank. When the waste tank inlet is completely sealed off, a maximum of 13" Hg will be attained.

To adjust the Vacuum Relief Valve on the waste tank, first check the level shown on the display monitor.

1. Turn the two nuts opposite directions so the inside nut turns freely. (Two brass knurled nuts are located on the side of the blower filter inlet box located on the outside of the waste tank - see Figure X.)
2. Increase the vacuum of the system by turning the nut clockwise (tightening).
3. Decrease the vacuum of the system by turning the nut counter-clockwise (loosening).
4. Once the tank is set to the proper level, turn the two nuts toward each other to lock them down.
5. Always verify the final setting before locking adjusting nut.

DO NOT exceed 13"Hg vacuum pressure. This can cause damage to the vacuum pump. If the vacuum pressure is higher than 13.5"Hg, it will force the Truck Mount into idle mode. The display will indicate the warning. Follow the adjusting vacuum relief valve steps in the maintenance section.

BATTERY

⚠WARNING Turn Truck Mount off and allow to cool before performing any maintenance.

Explosive gases, Dangerous acid!

Batteries contain sulfuric acid. To prevent acid burns, avoid contact with skin, eyes and clothing. Batteries also produce explosive hydrogen gases while charging. To prevent fire or explosion, charge batteries only in a well-ventilated area. Keep sparks, open flames, as well as any other sources of ignition away from batteries at all times. Remove all jewelry prior to servicing batteries. Keep batteries out of the reach of children.

Before disconnecting the negative (–) ground cable, ensure that all switches are in the OFF position. If ON, a spark could occur at the ground connection terminal, which could cause an explosion if hydrogen gas or gasoline vapors are present. ALWAYS disconnect the negative (–) terminal first.

Attach the red positive (+) battery cable from the starter solenoid on the console to the positive (+) terminal on the battery and tighten down the nut.

Attach the black negative (–) battery cable from the ground on the console to the negative (–) terminal on the battery and tighten down the nut.

- If you do not have a maintenance free sealed battery, check the fluid level in the battery at least once a week. If low, fill to the recommended level ONLY with distilled water. DO NOT overfill the battery. Early failure or poor performance will result due to loss of electrolyte.
- Keep cables, terminals and external surfaces of the battery clean and dry. A buildup of corrosive acid or grime on the external surfaces could cause the battery to self-discharge.
- Battery terminals should be cleaned every 100 hours to prevent corrosion buildup. Wash the cables, terminals and external surfaces with a mild baking soda and water solution. Rinse thoroughly with fresh water. DO NOT allow baking soda to enter the battery cells, as this will destroy the electrolyte, resulting in battery failure.

⚠WARNING DO NOT touch electrical wires or components while the engine is running. Disconnect the battery before servicing this Truck Mount to prevent accidental starting. Failure to follow all of these guidelines can cause severe injury or fatality.

POWER REQUIREMENTS

Group 24 batteries are recommended as a Group U1 battery does not have enough capacity to power the Truck Mount if any additional powered accessories are installed. A Group 24 battery box and post battery terminals are provided in the installation kit. To use the post terminals, remove one screw from the terminal and insert the ring terminal of the battery cable. Reinstall screw through the ring terminal.

VACUUM HOSES

⚠WARNING Turn Truck Mount off and allow to cool before performing any maintenance.

⚠WARNING Water under high pressure at a high temperature can cause burns. Shut down Truck Mount, allow to cool down and relieve system of all pressure before removing valves, caps, plugs, fitting, filters, and bolts. Failure to follow all of these guidelines can cause severe injury or fatality.

To ensure maximum hose life, ATMI recommends that you rinse out the hoses with fresh water daily. ATMI recommends using Fresh-n-Free™ Anti-Allergen & Deodorizer to deodorize wands and hoses as well as other parts of the system.

Additionally, to keep odors down in the waste tank, we recommend the use of the Waste Tank Odor Puck.

HIGH PRESSURE SOLUTION HOSES

⚠WARNING Turn Truck Mount off and allow to cool before performing any maintenance.

NEVER attempt to repair high-pressure solution hoses. Repairing high-pressure solution hoses may result in severe burns and serious injury.

Inspect your high-pressure solution hoses for wear after the first 100 hours. Thereafter, inspect every 50 hours. If the hoses show any signs of damage or impending rupture, replace the hoses.

All high-pressure solution hoses must be rated for a minimum of 250° F/121° C. and 3,000 PSI and be a 1/4" High Temperature Hose. Thermoplastic hoses do not meet this requirement and should not be used. Severe burns and injury may result if the hoses do not meet these requirements.

ELECTRICAL PANEL ACCESS

⚠WARNING Turn Truck Mount off and allow to cool before performing any maintenance.

⚠WARNING DO NOT touch electrical wires or components while the engine is running. Disconnect the battery before servicing this Truck Mount to prevent accidental starting. Failure to follow all of these guidelines can cause severe injury or fatality.

Display Panel

If there is an electrical issue that requires a component to be replaced, remove the five screws. If you are not qualified to perform this work, please see an authorized specialist.

FREEZE PROTECTION

NOTE: In temperatures below 32°F/0°C, Truck Mount will freeze and precautions need to be made to prevent Truck Mount from freezing. No part of the Truck Mount will be warrantied if there is damage due to freezing.

If the Truck Mount is exposed to freezing weather conditions, the water inside of the Truck Mount may freeze, resulting in SERIOUS DAMAGE to the Truck Mount. The following is recommended to prevent this from occurring during the cold weather season:

1. Always park the Truck Mount in a heated building when not in use.
2. If a heated building is not available, winterize the Truck Mount with the appropriate anti-freeze. Must be RV antifreeze that is glycol-based. Do not use ALCOHOL-BASED RV antifreeze.
3. If the Truck Mount has auxiliary water tanks, it must be stored in a heated building or follow the freeze protection steps below.

FREEZE PROTECTION:

1. Drain all fluids from 4 tanks (Solution, Hard Surface, Chemical, & Waste tanks)
    - For Chemical and Hard Surface tanks, you will need to use your vacuum pump to pull out solution in tank.
2. Pour anti-freeze directly into Solution (10 gallons), Hard Surface (3 gallons), & Chemical tanks (3 gallons).
3. Start with normal startup procedures and run antifreeze through each system (carpet/upholstery, hard surface, Chemical). See Start-up Procedures for Carpet/Upholstery.
4. Connect solution line(s) and tool(s). Open tool valve(s) until anti-freeze begins to flow from the tool. Disconnect and store the hoses and tools once they have been filled with anti-freeze. Make sure that the tool will drain into an approved container.
5. Follow regular shut down procedures. See Shutdown Procedures.

Always follow safety precautions when disposing of waste material and only discard in accordance with local, state/provincial, and national requirements. IN ACCORDANCE WITH EPA, STATE AND LOCAL LAWS, DO NOT DISPOSE OF WASTEWATER INTO GUTTERS, STORM DRAINS, STREAMS, RESERVOIRS, ETC. The penalties for non-compliance can be serious. Always check local laws and regulations to be sure you are in compliance.

REMOVING ANTI-FREEZE FROM THE TRUCKMOUNT:

1. Connect the solution hoses to the Truck Mount, with a tool attached to the opposite end. Start the Truck Mount. Turn the water pump on. Open the tool valve and ensure that the anti-freeze goes into an approved container. Allow the anti-freeze to flow into the container until all anti-freeze has been drained.
2. Fill the solution tank with fresh water and repeat step 1.
3. Connect the water inlet hose to the Truck Mount and turn the water supply on. Connect all tools and solution hoses that were winterized to the solution outlet connection.
4. Open all tool valves and drain the anti-freeze into an approved container until the water runs clear and all of the anti-freeze is purged from the hoses and tools.
5. Turn the chemical valve to the ON (chemical) position and open attached tools solution valves. This will allow water to flow to the other side of the system.
6. After all of the anti-freeze has been removed, the Truck Mount is ready to operate.

The anti-freeze in your approved storage container will eventually become diluted with water. When the anti-freeze level drops below 40% of the total mixture, properly dispose of it and start over with fresh anti-freeze.

DESCALING YOUR TRUCKMOUNT

1. Drain Solution Tank and Hard Surface Tank.
2. Add descaler (follow directions for the descaler you use) directly into the solution tank and other tanks.
3. Set incoming solution valve lever to Carpet/Upholstery or Hard Surface.
4. Connect the solution hose to the quick connect to run descaler through the system.
5. Turn system switch to "ON."

ON THE DISPLAY (buttons):

6. Push the ignition button.
7. Push the throttle button.
8. Push the pressure pump button and select "ON."
9. Run the Truck Mount for 10 minutes in carpet/upholstery mode then turn the valve to hard surface and run for an additional 10 minutes.
10. Once you have run the Truck Mount, drain both tanks and dispose of in proper manner.
11. Fill both tanks with an alkaline to neutralize the system. Run for 10 minutes in carpet/upholstery mode then turn valve to hard surface and run for an additional 10 minutes.
12. Turn the solution pump switch to the OFF position and turn the ignition switch to the OFF position to turn off your Truck Mount.
13. Drain both tanks and dispose of waste in the proper manner.

    Always follow safety precautions when disposing of waste material and only discard in accordance with local, state/provincial, and national requirements. IN ACCORDANCE WITH EPA, STATE AND LOCAL LAWS, DO NOT DISPOSE OF WASTEWATER INTO GUTTERS, STORM DRAINS, STREAMS, RESERVOIRS, ETC. The penalties for non-compliance can be serious. Always check local laws and regulations to be sure you are in compliance.

NOTICE REGARDING HARD WATER DEPOSITS: The precision technology of the Truck Mount heat exchanger system is intolerant of any foreign material, including calcium or other deposits found in hard water. Hard water deposits will ultimately decrease the performance of the system and seriously lower the reliability of the Truck Mount.

For optimum Truck Mount performance, ATMI recommends testing water prior to use and, for water testing below 3.0 grains or more per gallon, adding a water softener. Failure to do so may void warranty. If a water softener is used, it must have a flow capacity of at least five (5) GPM or greater, without any hose constrictions.

SECTION FIVE: TROUBLESHOOTING

⚠WARNING DO NOT attempt to service this Truck Mount while it is running. High speed parts as well as high temperature components may result in severe injury, severed limbs, or fatality.

Accurate troubleshooting is based on a thorough and complete understanding of the Truck Mount and its systems.

If you experience a malfunction you do not understand, reach out to ATMI to find a qualified service professional near you.

This is not a conclusive list. If you have technical issues not listed here, please call ATMI at 800-841-4155.

To view all warnings and precautions visit the Safety, Cautions, & Warnings section of this Manual.

⚠WARNING DO NOT alter or modify your Truck Mount in any way. Use only replacement parts authorized by ATMI. Modifications or use of unapproved parts could create a hazard and will void your warranty. Contact ATMI for assistance.

⚠WARNING

Hot Surfaces. DO NOT operate equipment without all covers and guards in place. During the operation of the Truck Mount many surfaces will become extremely hot. Never touch hot surfaces, serious injury may result. Engine, vacuum pump, and heat exchanger components, hoses and fittings will be extremely hot from operation. To prevent severe burns, DO NOT touch these areas or the exhaust system while the Truck Mount is running, or for at least 20 minutes after the Truck Mount is turned off. Severe burns could result.

Electrical Shock. Electrical shock could cause severe burns or injury. DO NOT touch electrical wires or components while the engine is running. Disconnect the battery before servicing the Truck Mount.

Batteries contain sulfuric acid. To prevent acid burns, avoid contact with skin, eyes and clothing. Batteries also produce explosive hydrogen gases while charging. To prevent fire or explosion, charge batteries only in a well-ventilated area. Keep sparks, open flames, as well as any other sources of ignition away from batteries at all times. Remove all jewelry prior to servicing batteries.

Rotating Equipment. DO NOT operate equipment without all covers and guards in place. DO NOT touch these areas while the Truck Mount is running, severe injury could result. DO NOT place hands, feet, hair, clothing or any body parts near rotating or moving parts. Rotating machinery can cause severe injury or fatality.

ENGINE TROUBLESHOOTING

ENGINE WILL NOT START (STARTER DOES NOT TURN OVER)

PROBABLE CAUSE	SOLUTION
Main circuit breaker on the control panel has been tripped.	After inspecting the Truck Mount to determine the cause of the tripped breaker, push the button on the circuit breaker. (If it trips again, you have an electrical short in the system.)
Loose or corroded battery connections.	Clean, tighten or replace the battery terminals.
Dead battery.	Recharge or replace battery.
Fuel Pump Time Out.	Turn system switch to “OFF” then turn back “ON.”
Defective (PDM) display screen circuit.	Test ignition output from the PDM to the display.
Defective starter motor.	Test the starter motor. Replace if necessary.
Vacuum pump seized.	Refer to the vacuum pump manufacturer service and repair Manual.

STARTER TURNS OVER BUT ENGINE WILL NOT START

PROBABLE CAUSE	SOLUTION
Fuel tank is out of fuel.	Check the fuel tank for correct level (above ~¼ tank).
Waste Tank is full and safety float switch is tripped.	Empty the waste tank.
Loose or broken wires leading to the waste tank float switch.	Repair or replace any broken electrical connections.
Defective float switch inside waste tank.	Check switch for proper operation. Replace if necessary.
Defective fuel pump.	Replace the fuel pump.
Loose or broken wires leading to the fuel pump.	Repair or replace any broken electrical connections.
Fuel filter is obstructed/clogged.	Replace fuel filter.
Engine is malfunctioning.	Refer to the engine owner’s Manual.

ENGINE STOPS RUNNING DURING NORMAL OPERATION

PROBABLE CAUSE	SOLUTION
Fuel tank is out of fuel.	Check the fuel tank for correct level (above ~1/4tank).
Waste tank is full and safety float switch is tripped	Empty waste tank.
Defective float switch inside waste tank.	Check switch for proper operation. Replace if necessary.
Main circuit breaker on the control panel has been tripped.	After inspecting the Truck Mount to determine the cause of the tripped breaker, push the button on the circuit breaker. (If it trips again, you have an electrical short in the system.)
Defective fuel pump.	Replace fuel pump.
Possible engine issues.	Refer to the engine owner’s Manual.

BLOWER/VACUUM PUMP TROUBLESHOOTING

LOSS OF VACUUM (WHILE CLEANING, ENGINE RPM IS NORMAL BUT VACUUM IS LOWER THAN EXPECTED)

PROBABLE CAUSE	SOLUTION
Waste tank filter or strainer basket is plugged.	Clean or replace filter. Clean strainer basket.
Waste tank drain valve is damaged or left open, causing a vacuum leak.	Drain the waste tank. Close drain valve, if open. Replace valve if defective.
Vacuum transmitter is giving an improper reading.	Examine the mechanical and electrical connections to the vacuum transmitter, replace if necessary.
Vacuum hose(s) damaged, causing a suction leak.	Inspect hose(s). Repair or replace.
Waste tank gaskets not sealing properly, not positioned properly.	Inspect the gasket. Repair seal or replace re-position lid(s).
Plugged vacuum hose or vacuum plumbing between vacuum inlet and strainer basket.	Unplug vacuum hose or inlet plumbing.
Vacuum relief valve requires adjustment or is faulty.	Re-adjust the vacuum relief valve, or replace if necessary.
Loose vacuum pump drive belts.	Tighten the drive belts.
Blower/Vacuum pump is worn out.	Replace the Blower/vacuum pump.

EXCESSIVE VACUUM WARNING

PROBABLE CAUSE	SOLUTION
Truck Mount is idling and is displaying excessive vacuum on the display.	Adjust vacuum relief valve to 13” Hg. Follow the Adjust Vacuum Relief Valve steps in the maintenance section.

HIGH PRESSURE SOLUTION PUMP TROUBLESHOOTING

LOSS OF SOLUTION PRESSURE (CLEANING TOOL OPEN, SOLUTION GAUGE READS LOW)

PROBABLE CAUSE	SOLUTION
Solution supply is turned off or low.	Turn the solution supply on or up. Check for kinks in the solution supply hose.
Solution pump inlet supply line is plugged or drawing air.	Examine filter solution screen. Remove accumulated debris and replace if required. Check for suction leaks and loose clamps or fittings. Tighten any loose fittings or clamps. Replace any ruptured hose(s).
Pressure regulator o-rings are dry and/or worn. See instructions on regulator.	Check o-rings. Lubricate and/or replace as needed, using o-ring lubricant.
Pressure regulator is dirty, stuck open, or improperly adjusted. See instructions on regulator.	Clean or repair regulator. Adjust to working pressure. Lubricate o-rings, using o-ring lubricant.
Low pump volume. (Measure the amount of water being returned to the water box from the pressure regulator.)	Examine the check valves, plunger cups, and cylinder head on the solution pump. Repair, whenever required (refer to the solution pump service Manual)
Defective water pressure transmitter.	Replace transmitter.
Orifice (spray nozzle) in the cleaning tool is worn, defective or wrong size.	Replace Nozzle or change nozzle size.
Carpet/Upholstery Solution Out Orifice restricted/clogged.	Clean or replace.
Solution Outlet Check Valve is restricted/clogged.	Clean or replace.
Solution Outlet Quick Connect restricted/clogged.	Clean or replace.
Debris clogging water lines or water inlet disconnected.	Clean or replace as needed.
Belts loose or broken.	Re-tension or replace as needed.
Loss of pump prime.	Manually prime solution pump.

LOSS OF SOLUTION VOLUME AT TOOL (PSI ON THE DISPLAY READS CORRECT)

PROBABLE CAUSE	SOLUTION
Plugged orifice and/or screen in the cleaning tool.	Unplug or replace orifice and/or screen.
Internal block between the inlet pressure regulator and the solution outlet manifold, or the solution screen is clogged.	Inspect all lines, remove accumulated debris which is blocking flow. Replace any defective hoses. Remove, inspect, and clean the solution screen. De-scale Truck Mount and install a water softener, if necessary.
Outlet check valve is plugged.	Examine the check valve, remove any debris.
Defective quick-connect on one or more of the high pressure hoses.	Replace defective quick-conneR SERIES(s) on high pressure hoses(s).
Cleaning tool valve is malfunctioning.	Repair or replace valve.
Hose inner lining is constricted.	Remove restriction or replace hose.
Air leak in chemical supply line, priming valve or metering valve.	Check for air leaks. Replace faulty parts.

SOLUTION PUMP CLUTCH DOES NOT ENGAGE

PROBABLE CAUSE	SOLUTION
Defective electrical connection in the console wiring or defective switch.	Examine switch, electrical connections, and wiring. Repair any defective connections. If there is power going to the switch but not going out, replace the defective switch.
Solution pump clutch has not been activated.	Press solution pump switch to “ON.”
Defective solution pump clutch.	Check the solution pump electrical circuit.
Loose or broken solution pump belts.	Tighten or replace belts.
Pressure Transmitter can be faulty or disconnected.	Check the Pressure Transmitter circuit for continuity and or sensor malfunction.

CHEMICAL INJECTION SYSTEM TROUBLESHOOTING

CHEMICAL FLOW ISSUES

PROBABLE CAUSE	SOLUTION
Chemical valve in the “OFF” position.	Turn the Chemical valve to the “ON” position.
Chemical pump is improperly primed.	Refer to Chemical pump priming instructions.
Suction leak in the inlet line leading into the Chemical pump.	Inspect inlet lines and flow meter for air leaks or damage.
Chemical valve in the prime position.	Turn the Chemical valve to the “OFF” or “ON” position.
External or Internal leak in Chemical piping.	Tighten or replace fittings. Re-apply thread sealant and/or tighten hose clamps where required.
Clog in the system.	Check strainer, check valve(s), piping. Remove any debris and replace any parts if necessary.
Chemical flow valve is defective.	Replace valve.
Chemical prime/”ON”/”OFF” valve is defective.	Replace valve(s).

HEAT EXCHANGER/TEMPERATURE RELATED TROUBLESHOOTING

EXCESSIVE HEATING

PROBABLE CAUSE	SOLUTION
Flow restriction caused by hard water scaling.	Descale Truck Mount. Repair or replace damaged plumbing components as necessary. Install a water softener.
Not enough water flowing during normal operation.	Check jet size of tool. Do not let cleaning tool sit for long periods with Truck Mount running. Trigger tool more often.
Diverter valve not functioning properly.	Check operation of diverter valve with Truck Mount in operation. Piston behind cylinder will move towards the rear of the Truck-Mount when heating and towards the front when cooling.
Temperature Transmitter can be corroded with hard scale build up on the probe.	Inspect Temperature Transmitter probe for corrosion, clean if corroded or replace.

LOSS OF TEMPERATURE

PROBABLE CAUSE	SOLUTION
No vacuum hose is connected.	Connect vacuum hose to vacuum inlet port.
Temperature relief valve on water box is stuck open.	Clean temperature relief valve and test. Replace if necessary.
Diverter valve not functioning properly.	Check the operation of diverter valve (see table above).
Temperature Transmitter can be corroded with hard scale build up on the probe.	Inspect Temperature Transmitter probe for corrosion, clean if corroded or replace.

HEAT EXCHANGER LEAKING

PROBABLE CAUSE	SOLUTION
Water is dripping from the exhaust port due to condensation build-up.	NOTE: The heat exchanger may produce water condensation discharge at times during normal operation. Do not confuse this with a leak.
Heat exchanger is damaged from frozen water.	Inspect heat exchanger for leaks. Visually inspect for damage. Pressure check after removing the Truck Mount (maximum test pressure – 1,500 PSI).

AUTOMATIC PUMP OUT (APO) OR WASTE PUMP (IF INSTALLED) TROUBLESHOOTING

APO NOT OPERATING NORMALLY

PROBABLE CAUSE	SOLUTION
Defective APO float switch.	Replace float switch.
Inspect APO impeller for debris or damage.	Clean or replace if necessary.
Weak battery.	Charge or replace battery if needed. Check charging station.
Pump-out circuit breaker on control panel has been tripped.	After inspecting waste pump to determine the cause of the tripped circuit breaker, press the reset button.
Loose wiring on the APO or the battery.	Check wiring.

DISPLAY TROUBLESHOOTING

DISPLAY NOT TURNING ON

If the display is not turning on, check the circuit breaker to see if it has been tripped. If it has, push it back in. If the display has any other issues and/or continues to not operate normally, contact a ATMI service or customer care representative at 800-841-4155.

PSI ENGINE TROUBLESHOOTING CODES

If your Truck Mount displays an engine code, record the code and call a ATMI representative for assistance at 800-841-4155.

DIAGNOSTIC TROUBLE CODE (DTC) CHART – SORTED BY DTC # (1 of 4)

Description	DTC Set 2 SPN-2	FMI-2	Description	DTC Set 2 SPN-2	FMI-2
DTC 11: Intake cam / distributor position error	520800	7	DTC 268: Injector 3 coil shorted	653	6
DTC 16: Crank and/or cam could not synchronize during start	636	8	DTC 270: Injector 4 open or short to ground	654	5
DTC 24: Exhaust cam position error	520801	7	DTC 271: Injector 4 coil shorted	654	6
DTC 87 Fuel pressure lower than expected	94	1	DTC 273: Injector 5 open or short to ground	655	5
DTC 88 Fuel pressure higher than expected	94	0	DTC 274: Injector 5 coil shorted	655	6
DTC 91: FP low voltage	94	4	DTC 276: Injector 6 open or short to ground	656	5
DTC 92: FP high voltage	94	3	DTC 277: Injector 6 coil shorted	656	6
DTC 107: MAP voltage low	106	4	DTC 279: Injector 7 open or short to ground	657	5
DTC 108: MAP pressure high	106	16	DTC 280: Injector 7 coil shorted	657	6
DTC 111: IAT higher than expected stage 1	105	15	DTC 282: Injector 8 open or short to ground	658	5
DTC 112: IAT voltage low	105	4	DTC 283: Injector 8 coil shorted	658	6
DTC 113: IAT voltage high	105	3	DTC 285: Injector 9 open or short to ground	659	5
DTC 116: ECT higher than expected stage 1	110	15	DTC 286: Injector 9 coil shorted	659	6
DTC 117: ECT voltage low	110	4	DTC 288: Injector 10 open or short to ground	660	5
DTC 118: ECT voltage high	110	3	DTC 289: Injector 10 coil shorted	660	6
DTC 121: TPS1-2 lower than expected	51	1	DTC 1631: PWM1-Gauge1 open / ground short	697	5
DTC 122: TPS1 voltage low	51	4	DTC 299: Boost control underboost failure	1692	1
DTC 123: TPS1 voltage high	51	3	DTC301: Cylinder 1 emissions/catalyst damaging misfire	1323	31
DTC 127: IAT higher than expected stage 2	105	0	DTC302: Cylinder 2 emissions/catalyst damaging misfire	1324	31
DTC 129: BP pressure low	108	1	DTC303: Cylinder 3 emissions/catalyst damaging misfire	1325	31
DTC 134: EGO1 open / lazy	724	10	DTC304: Cylinder 4 emissions/catalyst damaging misfire	1326	31
DTC 140: EGO3 open / lazy	520209	10	DTC305: Cylinder 5 emissions/catalyst damaging misfire	1327	31
DTC 154: EGO2 open / lazy	520208	10	DTC306: Cylinder 6 emissions/catalyst damaging misfire	1328	31
DTC 160: EGO4 open / lazy	520210	10	DTC307: Cylinder 7 emissions/catalyst damaging misfire	1329	31
DTC 171: Adaptive-learn gasoline bank1 high	520200	0	DTC308: Cylinder 8 emissions/catalyst damaging misfire	1330	31
DTC 172: Adaptive-learn gasoline bank1 low	520200	1	DTC 326: Knock1 excessive or erratic signal	731	2
DTC 174: Adaptive-learn gasoline bank2 high	520201	0	DTC 327: Knock1 sensor open or not present	731	4
DTC 175: Adaptive-learn gasoline bank2 low	520201	1	DTC 331: Knock2 excessive or erratic signal	520241	2
DTC 182: FT low voltage	174	4	DTC 332: Knock2 sensor open or not present	520241	4
DTC 183: FT high voltage	174	3	DTC 336: CRANK input signal noise	636	2
DTC 187: Gaseous fuel temperature sender low voltage	520240	4	DTC 337: Crank signal loss	636	4
DTC 188: Gaseous fuel temperature sender high voltage	520240	3	DTC 341: CAM input signal noise	723	2
DTC 217: ECT higher than expected stage 2	110	0	DTC 342: Loss of CAM input signal	723	4
DTC 219: RPM higher than max allowed govern speed	515	15	DTC 359: Fuel run-out longer than expected	1239	7
DTC 221: TPS1-2 higher than expected	51	0	DTC 420: Catalyst inactive on gasoline (Bank 1)	520211	10
DTC 222: TPS2 voltage low	520251	4	DTC 430: Catalyst inactive on gasoline (Bank 2)	520212	10
DTC 223: TPS2 voltage high	520251	3	DTC 502: Roadspeed input loss of signal	84	1
DTC 234: Boost control overboost failure	1692	0	DTC 508: IAC ground short	520252	6
DTC 236: TIP active	1692	2	DTC 509: IAC coil open/short	520252	5
DTC 237: TIP low voltage	1127	4	DTC 520: Oil pressure sender low pressure stage 1	100	18
DTC 238: TIP high voltage	1127	3	DTC 521: Oil pressure sender high pressure	100	0
DTC 261: Injector 1 open or short to ground	651	5	DTC 522: Oil pressure sender low voltage	100	4
DTC 262: Injector 1 coil shorted	651	6	DTC 523: Oil pressure sender high voltage	100	3
DTC 264: Injector 2 open or short to ground	652	5	DTC 524: Oil pressure low	100	1
DTC 265: Injector 2 coil shorted	652	6	DTC 562: Vbat voltage low	168	17
DTC 267: Injector 3 open or short to ground	653	5	DTC 563: Vbat voltage high	168	15

DIAGNOSTIC TROUBLE CODE (DIC) CHART - **SORTED BY DTC # *(2* of 4)**

Description	DTC Set 2 SPN-2	FMI-2	Description	DTC Set2 SPN-2	FMI-2
OTC 601: Microprocessor failure - FLASH	628	13	OTC 1175: MegaJector voltage supply low	520260	4
OTC 604: Microprocessor failure - RAM	630	12	OTC 1176: MegaJector internal actuator fault detection	520260	12
OTC 606: Microprocessor failure - COP	629	31	OTC 1177: MegaJector internal circuitry fault detection	520260	12
OTC 615: Start relay coil open	1321	5	OTC 1178: MegaJector internal comm fault detection	520260	12
OTC 616: Start relay ground short	1321	4	OTC 1182: Fuel impurity level high	520401	0
OTC 617: Start relay coil short to power	1321	3	OTC 1183: MegaJector autozero / lockoff failure	520803	31
OTC 627: Fuel pump relay coil open	1348	5	OTC 1311: Cylinder 1 misfire detected	1323	11
OTC 628: Fuel-pump high-side open or short to ground	1347	5	OTC 1312: Cylinder2 misfire detected	1324	11
OTC 628: Fuel pump relay control ground short	1348	4	OTC 1313: Cylinder3 misfire detected	1325	11
OTC 629: Fuel-pump high-side short to power	1347	6	OTC 1314: Cylinder4 misfire detected	1326	11
OTC 629: Fuel pump relay coil short to power	1348	3	OTC 1315: Cylinder5 misfire detected	1327	11
OTC 642: Sensor supply voltage 1 low	1079	4	OTC 1316: Cylinder6 misfire detected	1328	11
OTC 643: Sensor supply voltage 1 high	1079	3	OTC 1317: Cylinder 7 misfire detected	1329	11
OTC 650: MIL open	1213	5	OTC 1318: Cylinder8 misfire detected	1330	11
OTC 652: Sensor supply voltage 2 low	1080	4	OTC 1411: EMVVT1 voltage high	441	3
OTC 653: Sensor supply voltage 2 high	1080	3	OTC 1412: EMVVT2 voltage high	**442**	3
OTC 685: Power relay coil open	1485	5	OTC 1413: EMVVT1 voltage low	441	4
OTC 686: Power relay ground short	1485	4	OTC 1414: EMVVT2 voltage low	**442**	4
OTC 687: Power relay coil short to power	1485	3	OTC 1415: EMVVT1 higherthanexpectedstage 1	441	15
OTC 916: Shift actuator feedback out-of-range	520226	3	OTC 1416: EMVVT2 higher than expected stage 1	**442**	15
OTC 919: Shift unable to reach desired gear	520226	7	OTC 1417: EMVVT1 higher than expected stage 2	**441**	0
OTC 920: Shift actuator or drive circuit failed	520226	31	OTC 1418: EMVVT2 higher than expected stage 2	**442**	0
OTC 1111: RPM above fuel rev limit level	515	16	OTC 1419: ERVVT1 voltage high	443	3
OTC 1112: RPM above spark rev limit level	515	0	OTC 1420: ERVVT2 voltage high	**444**	3
OTC 1121: FPP1/2 simultaneous voltages out-of-range (redundan	91	31	OTC 1421: ERVVT1 voltage low	**443**	4
OTC 1122: FPP1/2 do not match each other or IVS (redundancy l(	520250	31	OTC 1422: ERVVT2 voltage low	**444**	4
OTC 1131: \NGP voltage high	1192	3	OTC 1423: ERVVT1 higher than expected stage 1	**443**	15
OTC 1132: \NGP voltage low	1192	4	OTC 1424: ERVVT2 higher than expected stage 1	**444**	15
OTC 1151: Closed-loop LPG high	520206	0	OTC 1425: ERVVT1 higher than expected stage 2	**443**	0
OTC 1152: Closed-loop LPG low	520206	1	OTC 1426: ERVVT2 higher than expected stage 2	**444**	0
OTC 1153: Closed-loop NG high	520207	0	OTC 1511: AUX analog Pull-Up 1 high vofage	520216	3
OTC 1154: Closed-loop NG low	520207	1	OTC 1512: AUX analog Pull-Up 1 lowvoltage	520216	4
OTC 1155: Closed-loop gasoline bank1 high	520204	0	OTC 1513: AUX analog Pull-Up 2 high voltage	520217	3
OTC 1156: Closed-loop gasoline bank1 low	520204	1	OTC 1514: AUX analog Pull-Up 2 low voltage	520217	4
OTC 1157: Closed-loop gasoline bank2 high	520205	0	OTC 1515: AUX analog Pull-Down 1 high voltage	520215	3
OTC 1158: Closed-loop gasoline bank2 low	520205	1	OTC 1516: AUX analog Pull-Down 1 low voltage	520215	4
OTC 1161: Adaptive-learn LPG high	520202	0	OTC 1517: AUX analog Pull-Up 3 high voltage	520218	3
OTC 1162: Adaptive-learn LPG low	520202	1	OTC 1518: AUX analog Pull-Up 3 low voltage	520218	4
OTC 1163: Adaptive-learn NG high	520203	0	OTC 1521: CHT higher than expected stage 1	110	16
OTC 1164: Adaptive-learn NG low	520203	1	OTC 1522: CHT higher than expected stage 2	110	0
OTC 1165: Catalyst inactive on LPG	520213	10	OTC 1531: Gov1/2/3 interlock failure	520270	31
OTC 1166: Catalyst inactive on NG	520214	10	OTC 1541: AUX analog Pull-Up/Down 1 high voltage	520219	3
OTC1171:MegaJectordeliverypressurehigherthan expected	520260	0	OTC 1542: AUX analog Pull-Up/Down 1 low voltage	520219	4
OTC1172: MegaJectordeliverypressurelowerthanexpected	520260	1	OTC 1543: AUX analog Pull-Up/Down 2 high voltage	520220	3
OTC 1173: MegaJector comm lost	520260	31	OTC 1544: AUX analog Pull-Up/Down 2 low voltage	520220	4
OTC 1174: MegaJector voltage supply high	520260	3	OTC 1545: AUX analog Pull-Up/Down 3 high voltage	520221	3

DIAGNOSTIC TROUBLE CODE (DIC) CHART - **SORTED BY DTC # *(3* of 4)**

Description	OTC Set 2 SPN-2	FMI-2	Description	OTC Set 2 SPN-2	FMI-2
OTC 1546: AUX analog Pull-Up/Down 3 low voltage	520221	4	OTC 1662: PWM6 short to power	925	3
OTC 1547: AUX analog Pull-Up/Down **4** high voltage	713	3	OTC 1663: PWM7 open/ ground short	926	5
OTC 1548: AUX analog Pull-Up/Down **4** low voltage	713	4	OTC 1664: PWM7 short to power	926	3
OTC 1551: AUX digital 1 high voltage	520222	3	OTC 1665: PWM8 open/ ground short	2646	5
OTC 1552: AUX digital 1 low voltage	520222	4	OTC 1666: PWM8 short to power	2646	3
OTC 1553: AUX digital 2 high voltage	520223	3	OTC 1669: PWM9 open/ ground short	2647	5
OTC 1554: AUX digital 2 low voltage	520223	4	OTC 1670: PWM9 short to power	2647	3
OTC 1555: AUX digital 3 high voltage	520224	3	OTC 2111: Unable to reach lower TPS	51	7
OTC 1555: Water Intrusion Detection	520224	3	OTC 2112: Unable to reach higher TPS	51	7
OTC 1556: AUX digital 3 low voltage	520224	4	OTC 2115: FPP1 higher than IVS	91	0
OTC 1561: AUX analog Pull-Down 2 high voltage	0	3	OTC 2116: FPP2 higher than IVS	29	0
OTC 1561: AUX analog Pull-Down 3 high voltage	0	3	DTC 2120: FPP1 invalid voltage and FPP2 disagrees with IV	520250	31
OTC 1561: AUX analog Pull-Down 2 low voltage	0	4	OTC 2121: FPP1-2 lowerthan expected	91	18
OTC 1561: AUX analog Pull-Down 3 low voltage	0	4	OTC 2122: FPP1 voltage high	91	3
OTC 1611: Sensor supply voltage 1 and 2 out-of-range	1079	31	OTC 2123: FPP1 voltage low	91	4
OTC 1612: Microprocessor failure - RTI 1	629	31	DTC 2125: FPP2 invalid voltage and FPP1 disagrees with IV'	520250	31
OTC 1613: Microprocessor failure - RTI 2	629	31	OTC 2126: FPP1-2 higher than expected	91	16
OTC 1614: Microprocessor failure - RTI 3	629	31	OTC 2127: FPP2 voltage low	29	4
OTC 1615: Microprocessor failure - AID	629	31	OTC 2128: FPP2 voltage high	29	3
OTC 1616: Microprocessor failure - Interrupt	629	31	OTC 2130: IVS stuck at-idle, FPP1/2 match	558	5
U I(.; 1b:LI: K::::;-4<:lb KX 1nact1ve	u	JI	u IL: :L1JI: IV:::; stuck otr-1dle, r-i---i--- I1:L match	*bb<:I*	b
OTC 1622: RS-485 Rx noise	0	31	DTC 2135: TPS1/2 simultaneous voltages out-of-range	51	31
OTC 1623: RS-485 Rx bad packet format	0	31	OTC 2139: FPP1 lower than IVS	91	1
OTC 1624: RS-485 remote shutdown request	0	31	OTC 2140: FPP2 lowerthan IVS	29	1
OTC 1625: J1939 shutdown request	1384	31	OTC 2229: BP pressure high	108	0
OTC 1626: CAN-J1939 Txfault	639	12	OTC 2300: Spark coil 1primaryopenorshorttoground	1268	5
OTC 1627: CAN-J1939 Rx fault	639	12	OTC 2301: Spark coil 1 primary shorted	1268	6
OTC 1628: J1939 CAN address/ engine-number conflict	639	13	OTC 2303: Spark coil 2primary openorshortto ground	1269	5
OTC 1629: J1939 TSC1 message receipt loss	639	9	OTC 2304: Spark coil 2 primary shorted	1269	6
OTC 1630: J1939 ETC message receipt loss	91	2	OTC 2306: Spark coil3primary openorshortto ground	1270	5
OTC 1632: PWM1-Gauge1 short to power	697	6	OTC 2307: Spark coil 3 primary shorted	1270	6
OTC 1633: PWM2-Gauge2 open/ ground short	698	5	OTC 2309: Spark coil 4primary openorshortto ground	1271	5
OTC 1634: PWM2-Gauge2 short to power	698	6	OTC 2310: Spark coil 4 primary shorted	1271	6
OTC 1635: PWM3-Gauge3 open/ ground short	699	5	OTC 2312: Spark coil5primary openorshortto ground	1272	5
OTC 1636: PWM3-Gauge3 short to power	699	6	OTC 2313: Spark coil 5 primary shorted	1272	6
OTC 1637: PWM4 open/ ground short	700	5	OTC 2315: Spark coil6primary openorshortto ground	1273	5
OTC 1638: PWM4 short to power	700	6	OTC 2316: Spark coil 6 primary shorted	1273	6
OTC 1639: PWM5 open/ ground short	520230	5	OTC 2318: Spark coil7primary openorshortto ground	1274	5
OTC 1640: PWM5 short to power	520230	6	OTC 2319: Spark coil 7 primary shorted	1274	6
OTC 1641: Buzzer control ground short	920	4	OTC 2321: Spark coil8primaryopenorshorttoground	1275	5
OTC 1642: Buzzer open	920	5	OTC 2322: Spark coil 8 primary shorted	1275	6
OTC 1643: Buzzer control short to power	920	3	OTC 2324: Spark coil9primary openorshortto ground	1276	5
OTC 1644: MIL control ground short	1213	4	OTC 2325: Spark coil 9 primary shorted	1276	6
OTC 1645: MIL control short to power	1213	3	DTC2327: Sparkcoil 10primaryopenorshorttoground	1277	5
OTC 1651: J1939 ETCmessage receiptlosswhile in-gear	91	9	OTC 2328: Spark coil 10 primary shorted	1277	6
OTC 1661: PWM6 open/ ground short	925	5	OTC 2428: EGT temperature high	173	0

DIAGNOSTIC TROUBLE CODE (DIC) CHART - SORTED BY DTC # *(4* of 4)

Description	DTC Set 2 SPN-2	FMI-2
OTC 2618: Tach output ground short	645	4
OTC 2619: Tach output short to power	645	3
OTC 8901: UEGO microprocessor internal fault	3221	31
OTC 8902: UEGO heater supply high voltage	3222	3
OTC 8903: UEGO heater supply low voltage	3222	4
OTC 8904: UEGO cal resistor voltage high	3221	3
OTC 8905 UEGO cal resistor voltage low	3221	4
OTC 8906: UEGO return voltage shorted high	3056	3
OTC 8907: UEGO return voltage shorted low	3056	4
OTC 8908: UEGO pump voltage shorted high	3218	3
OTC 8909: UEGO pump voltage shorted low	3218	4
OTC 891O: UEGO sense cell voltage high	3217	3
OTC 8911: UEGO sense cell voltage low	3217	4
OTC 8912: UEGO pump voltage at high drive limit	3225	3
OTC 8913 UEGO pump voltage at low drive limit	3225	4
OTC 8914 UEGO sense cell slow to warm up	3222	10
OTC 8915: UEGO pump cell slow to warm up	3225	10
OTC 8916: UEGO sense cell impedance high	3222	0
OTC 8917: UEGO pump cell impedance high	3225	0
OTC 8918: UEGO pump cell impedance low	3225	1

DIAGNOSTIC TROUBLE CODE (DTC) CHART- **SORTED BY SPN:FMI (1 of 4)**

Description	DTC Set 2 SPN-2	FMI-2	Description	DTC Set 2 SPN-2	FMI-2
DTC1561: AUXanalog Pull-Down 2highvoltage	0	3	DTC 107: MAP voltage low	106	4
DTC1561: AUXanalog Pull-Down 3 highvoltage	0	3	DTC 108: MAP pressure high	106	16
DTC 1561: AUX analog Pull-Down 2lowvoltage	0	4	DTC 2229 BP pressure high	108	0
DTC 1561: AUX analog Pull-Down 3lowvoltage	0	4	DTC 129: BP pressure low	108	1
DTC 1621: RS-485 Rx inactive	0	31	DTC 1522: CHT higher than expected stage 2	110	0
DTC 1622 RS-485 Rx noise	0	31	DTC 217: ECT higher than expected stage 2	110	0
DTC 1623 RS-485 Rx bad packet format	0	31	DTC 118: ECT voltage high	110	3
DTC 1624 RS-485 remote shutdown request	0	31	DTC 117 ECT voltage low	110	4
Undefined OTC- Index 10297	0	31	DTC 116: ECT higher than expected stage 1	110	15
Undefined DTC- Index 10298	0	31	DTC 1521: CHT higher than expected stage 1	110	16
Undefined DTC - Index 10299	0	31	DTC 563 Vbat voltage high	168	15
DTC 2116 FPP2 higher than IVS	29	0	DTC 562: Vbat voltage low	168	17
DTC 2140 FPP2 lower than IVS	29	1	DTC 2428 EGT temperature high	173	0
DTC 2128 FPP2 voltage high	29	3	DTC 183: FT high voltage	174	3
DTC 2127 FPP2 voltage low	29	4	DTC 182: FT low voltage	174	4
DTC 221 TPS1-2 higher than expected	51	0	DTC 1417 EMWT1 higher than expected stage 2	441	0
DTC 121: TPS1-2 lower than expected	51	1	DTC 1411: EMWT1 voltage high	441	3
DTC 123: TPS1 voltage high	51	3	DTC 1413: EMWT1 voltage low	441	4
DTC 122 TPS1 voltage low	51	4	DTC 1415 EMWT1 higher than expected stage 1	441	15
DTC 2112 Unable to reach higher TPS	51	7	DTC 1418: EMWT2 higher than expected stage 2	442	0
DTC 2111. Unable to reach lower TPS	51	7	DTC 1412: EMWT2 voltage high	442	3
OTC 2135: TPS1/2 simultaneousvoltages out-of-rar	51	31	DTC 1414: EMWT2 voltage low	442	4
DTC 502: Roadspeed input loss of signal	84	1	DTC 1416: EMWT2 higher than expected stage 1	442	15
DTC 2115 FPP1 higher than IVS	91	0	DTC 1425: ERWT1 higher than expected stage 2	443	0
DTC 2139 FPP1 lower than IVS	91	1	DTC 1419: ERWT1 voltage high	443	3
DTC 1630 J1939 ETC message receipt loss	91	2	DTC 1421: ERWT1 voltage low	443	4
DTC 2122 FPP1 voltage high	91	3	DTC 1423: ERWT1 higher than expected stage 1	443	15
DTC 2123 FPP1 voltage low	91	4	DTC 1426: ERWT2 higher than expected stage 2	444	0
OTC 1651. J1939 ETC message receipt loss while i	91	9	DTC 1420: ERWT2 voltage high	444	3
DTC 2126 FPP1-2 higher than expected	91	16	DTC 1422: ERWT2 voltage low	444	4
DTC 2121• FPP1-2 lower than expected	91	18	DTC 1424: ERWT2 higher than expected stage 1	444	15
OTC 1121: FPP1/2 simultaneousvoltages out-of-rar	91	31	DTC 1112: RPM above spark rev limit level	515	0
DTC 88 Fuel pressure higher than expected	94	0	DTC219 RPM higherthan max allowed govern speed	515	15
DTC 87 Fuel pressure lower than expected	94	1	DTC 1111: RPM above fuel rev limit level	515	16
DTC 92 FP high voltage	94	3	DTC 2130: IVS stuck at-idle, FPP1/2 match	558	5
DTC 91• FP low voltage	94	4	DTC 2131: IVS stuck off-idle, FPP1/2 match	558	6
DTC 521: Oil pressure sender high pressure	100	0	DTC 601: Microprocessor failure - FLASH	628	13
DTC 524: Oil pressure low	100	1	DTC 606: Microprocessor failure - COP	629	31
DTC 524: Oil pressure sender low pressure	100	1	DTC 1612: Microprocessor failure - RTI 1	629	31
DTC 523: Oil pressure sender high voltage	100	3	DTC 1613: Microprocessor failure - RTI 2	629	31
DTC 522: Oil pressure sender low voltage	100	4	DTC 1614: Microprocessor failure - RTI 3	629	31
OTC 520 Oil pressure sender low pressure stage 1	100	18	DTC 1615: Microprocessor failure - AID	629	31
DTC 127: IAT higher than expected stage 2	105	0	DTC 1616: Microprocessor failure - Interrupt	629	31
DTC 113: IAT voltage high	105	3	DTC 604: Microprocessor failure - RAM	630	12
DTC 112: IAT voltage low	105	4	DTC 336: CRANK input signal noise	636	2
DTC 111: IAT higher than expected stage 1	105	15	DTC 337: Crank signal loss	636	4

DIAGNOSTIC TROUBLE CODE (DTC) CHART- **SORTED BY SPN:FMI *(2 of 4)***

Description	OTC Set 2 SPN-2	FMI-2	Description	OTC Set 2 SPN-2	FMI-2
UIG 1o: GranK and/or cam could not synchronized	b:.lb	I,j	UT(..; 100 I: 1-'VVIVI0 open / ground short	□*Lo*	:)
OTC 1629: J1939 TSC1 message receipt loss	639	9	OTC 1664: PWM7 short to power	926	3
OTC 1626: CAN-J1939 Tx fault	639	12	OTC 1663: PWM7 open / ground short	926	5
OTC 1627: CAN-J1939 Rx fault	639	12	OTC 643: Sensor supply voltage 1 high	1079	3
OTC 1628: J1939 CAN address/ engine-number co	639	13	OTC 642: Sensor supply voltage 1 low	1079	4
OTC 2619: Tach output short to power	645	3	OTC1611: Sensorsupplyvoltage 1and2out-of-range	1079	31
OTC 2618: Tach output ground short	645	4	OTC 653: Sensor supply voltage 2 high	1080	3
OTC 261: Injector 1 open or short to ground	651	5	OTC 652: Sensor supply voltage 2 low	1080	4
OTC 262: Injector 1 coil shorted	651	6	OTC 238: TIP high voltage	1127	3
OTC 264: Injector 2 open or short to ground	652	5	OTC 237: TIP low voltage	1127	4
OTC 265: Injector 2 coil shorted	652	6	OTC 1131: WGP voltage high	1192	3
OTC 267: Injector 3 open or short to ground	653	5	OTC 1132: WGP voltage low	1192	4
OTC 268: Injector 3 coil shorted	653	6	OTC 1645: MIL control short to power	1213	3
OTC 270: Injector 4 open or short to ground	654	5	OTC 1644: MIL control ground short	1213	4
OTC 271: Injector 4 coil shorted	654	6	OTC 650: MIL open	1213	5
OTC 273: Injector 5 open or short to ground	655	5	OTC 359: Fuel run-out longer than expected	1239	7
OTC 274: Injector 5 coil shorted	655	6	OTC2300: Sparkcoil1primaryopen orshorttoground	1268	5
OTC 276: Injector 6 open or short to ground	656	5	OTC 2301: Spark coil 1 primary shorted	1268	6
OTC 277: Injector 6 coil shorted	656	6	OTC2303: Sparkcoil 2primaryopen orshorttoground	1269	5
OTC 279: Injector 7 open or short to ground	657	5	OTC 2304: Spark coil 2 primary shorted	1269	6
OTC 280: Injector 7 coil shorted	657	6	OTC2306: Sparkcoil3primaryopen orshorttoground	1270	5
OTC 282: Injector 8 open or short to ground	658	5	OTC 2307: Spark coil 3 primary shorted	1270	6
OTC 283: Injector 8 coil shorted	658	6	OTC230g: Sparkcoil **4**primaryopen orshorttoground	1271	5
OTC 285: Injector 9 open or short to ground	659	5	OTC 2310: Spark coil **4** primary shorted	1271	6
OTC 286: Injector 9 coil shorted	659	6	OTC2312: Sparkcoil5primaryopen orshorttoground	1272	5
OTC 288: Injector 10 open or short to ground	660	5	OTC 2313: Spark coil 5 primary shorted	1272	6
OTC 289: Injector 10 coil shorted	660	6	OTC2315: Sparkcoil6primaryopen orshorttoground	1273	5
OTC1631: PWM1-Gauge1 open/ground short	697	5	OTC 2316: Spark coil 6 primary shorted	1273	6
OTC 1632: PWM1-Gauge1 short to power	697	6	OTC2318: Sparkcoil7primaryopen orshorttoground	1274	5
OTC1633: PWM2-Gauge2 open/ground short	698	5	OTC 2319: Spark coil 7 primary shorted	1274	6
OTC 1634: PWM2-Gauge2 short to power	698	6	OTC2321: Sparkcoil8primaryopen orshorttoground	1275	5
OTC1635: PWM3-Gauge3 open/ground short	699	5	OTC 2322: Spark coil 8 primary shorted	1275	6
OTC 1636: PWM3-Gauge3 short to power	699	6	OTC2324: Sparkcoil9primaryopen orshorttoground	1276	5
OTC 1637: PWM4 open/ ground short	700	5	OTC 2325: Spark coil 9 primary shorted	1276	6
OTC 1638: PWM4 short to power	700	6	OTC 2327: Spark coil 10 primary open or short to ground	1277	5
OTC 1547: AUX analog Pull-Up/Down **4** highvoltag1	713	3	OTC 2328: Spark coil 10 primary shorted	1277	6
OTC 1548: AUX analog Pull-Up/Down **4** lowvoltage	713	4	OTC 617: Start relay coil short to power	1321	3
OTC 341: CAM input signal noise	723	2	OTC 616: Start relay ground short	1321	4
OTC 342: Loss of CAM input signal	723	4	OTC 615: Start relay coil open	1321	5
OTC 134: EG01 open/ lazy	**724**	10	OTC 1311: Cylinder 1 misfire detected	1323	11
OTC 326: Knock1 excessive or erratic signal	731	2	DTC301: Cylinder 1emissions/catalystdamaging misfire	1323	31
OTC 327: Knock1 sensor open or not present	731	4	OTC 1312: Cylinder 2 misfire detected	1324	11
OTC 1643: Buzzer control short to power	920	3	DTC302: Cylinder2 emissions/catalystdamaging misfire	1324	31
OTC 1641: Buzzer control ground short	920	4	OTC 1313: Cylinder 3 misfire detected	1325	11
OTC 1642: Buzzer open	920	5	DTC303: Cylinder3 emissions/catalystdamaging misfire	1325	31
OTC 1662: PWM6 short to power	**925**	**3**	OTC 1314: Cylinder **4** misfire detected	1326	11

DIAGNOSTIC TROUBLE CODE (DTC) CHART- **SORTED BY SPN:FMI *(3 of 4)***

Description	DTC Set 2 SPN-2	FMI-2	Description	DTC Set 2 SPN-2	FMI-2
OTC 304: Cylinder 4 emissions/catalyst damaging n	1326	31	OTC 175: Adaptive-learn gasoline bank2 low	520201	1
OTC 1315: Cylinder 5 misfire detected	1327	11	OTC 1161: Adaptive-learn LPG high	520202	0
OTC 305: Cylinder 5 emissions/catalyst damaging n	1327	31	OTC 1162: Adaptive-learn LPG low	520202	1
OTC 1316: Cylinder 6 misfire detected	1328	11	OTC 1163: Adaptive-learn NG high	520203	0
OTC 306: Cylinder 6 emissions/catalyst damaging n	1328	31	OTC 1164: Adaptive-learn NG low	520203	1
OTC 1317: Cylinder 7 misfire detected	1329	11	OTC 1155: Closed-loop gasoline bank1 high	520204	0
OTC 307: Cylinder 7 emissions/catalyst damaging n	1329	31	OTC 1156: Closed-loop gasoline bank1 low	520204	1
OTC 1318: Cylinder 8 misfire detected	1330	11	OTC 1157: Closed-loop gasoline bank2 high	520205	0
OTC 308: Cylinder 8 emissions/catalyst damaging n	1330	31	OTC 1158: Closed-loop gasoline bank2 low	520205	1
OTC 628: Fuel-pump high-side open orshorttogro	1347	5	OTC 1151: Closed-loop LPG high	520206	0
OTC 629: Fuel-pump high-side short to power	1347	6	OTC 1152: Closed-loop LPG low	520206	1
OTC 629: Fuel pump relay coil short to po'Ner	1348	3	OTC 1153: Closed-loop NG high	520207	0
DTC628: Fuel pump relaycontrolgroundshort	1348	4	OTC 1154: Closed-loop NG low	520207	1
OTC 627: Fuel pump relay coil open	1348	5	OTC 154: EG02 open / lazy	520208	10
OTC 1625: J1939 shutdown request	1384	31	OTC 140: EG03 open / lazy	520209	10
OTC 687: Power relay coil short to po'Ner	1485	3	OTC 160: EG04 open / lazy	520210	10
OTC 686: Power relay ground short	1485	4	OTC 420: Catalyst inactive on gasoline (Bank 1)	520211	10
OTC 685: Power relay coil open	1485	5	OTC 430: Catalyst inactive on gasoline (Bank 2)	520212	10
OTC 234: Boost control overboost failure	1692	0	OTC 1165: Catalyst inactive on LPG	520213	10
OTC 299: Boost control underboost failure	1692	1	OTC 1166: Catalyst inactive on NG	520214	10
OTC 236: TIP active	1692	2	OTC 1515: AUX analog Pull-Down 1 high voltage	520215	3
OTC 1666: PWM8 short to power	2646	3	OTC 1516: AUX analog Pull-Down 1 low voltage	520215	4
OTC 1665: PWM8 open/ ground short	2646	5	OTC 1511: AUX analog Pull-Up 1 high voltage	520216	3
OTC 1670: PWM9 short to power	2647	3	OTC 1512: AUX analog Pull-Up 1 low voltage	520216	4
OTC 1669: PWM9 open/ ground short	2647	5	OTC 1513: AUX analog Pull-Up 2 high voltage	520217	3
OTC 8906: UEGO return voltage shorted high	3056	3	OTC 1514: AUX analog Pull-Up 2 lowvoltage	520217	4
OTC 8907: UEGO return voltage shorted low	3056	4	OTC 1517: AUX analog Pull-Up 3 high voltage	520218	3
OTC 8910: UEGO sense cell voltage high	3217	3	OTC 1518: AUX analog Pull-Up 3 lowvoltage	520218	4
OTC 8911: UEGO sense cell voltage low	3217	4	DTC1541: AUXanalog Pull-Up/Down 1highvoltage	520219	3
OTC 8908: UEGO pump voltage shorted high	3218	3	OTC 1542: AUX analog Pull-Up/Down 1 low voltage	520219	4
OTC 8909: UEGO pump voltage shorted low	3218	4	DTC1543: AUXanalog Pull-Up/Down2 highvoltage	520220	3
OTC 8904: UEGO cal resistor voltage high	3221	3	OTC 1544: AUX analog Pull-Up/Down 2 low voltage	520220	4
OTC 8905: UEGO cal resistor voltage low	3221	4	DTC1545: AUXanalog Pull-Up/Down3 highvoltage	520221	3
OTC 8901: UEGO microprocessor internal fault	3221	31	OTC 1546: AUX analog Pull-Up/Down 3 low voltage	520221	4
OTC 8916: UEGO sense cell impedance high	3222	0	OTC 1551: AUX digital 1 high voltage	520222	3
OTC 8902: UEGO heater supply high voltage	3222	3	OTC 1552: AUX digital 1 low voltage	520222	4
OTC 8903: UEGO heater supply low voltage	3222	4	OTC 1553: AUX digital 2 high voltage	520223	3
OTC 8914: UEGO sense cell slow to v.arm up	3222	10	OTC 1554: AUX digital 2 lowvoltage	520223	4
OTC 8917: UEGO pump cell impedance high	3225	0	OTC 1555: AUX digital 3 high voltage	520224	3
OTC 8918: UEGO pump cell impedance low	3225	1	OTC 1555: Water Intrusion Detection	520224	3
OTC 8912: UEGO pump voltage at highdrive limit	3225	3	OTC 1556: AUX digital 3 lowvoltage	520224	4
OTC 8913: UEGO pump voltage at low drive limit	3225	4	OTC 916: Shift actuator feedback out-of-range	520226	3
OTC 8915: UEGO pump cell slow to warm up	3225	10	OTC 919: Shift unable to reach desired gear	520226	7
OTC 171: Adaptive-learn gasoline bank1 high	520200	0	OTC 920: Shift actuator or drive circuit failed	520226	31
OTC 172: Adaptive-learn gasoline bank1 low	520200	1	OTC 1639: PWM5 open / ground short	520230	5
OTC 174: Adaptive-learn gasoline bank2 high	520201	0	OTC 1640: PWM5 short to power	520230	6

DIAGNOSTIC TROUBLE CODE (DTC) CHART - **SORTED BY SPN:FMI 4 of 4)**

Description	DTC Set 2 SPN-2	FMI-2
OTC 188: Gaseous fuel temperature sender high vo	520240	3
OTC 187: Gaseous fuel temperature sender low volt	520240	4
OTC 331: Knock2 excessive or erratic signal	520241	2
OTC 332: Knock2 sensor open or not present	520241	4
OTC 2120: FPP1 invalid voltage and FPP2 disagree	520250	31
OTC 2125: FPP2 invalid voltage and FPP1 disagree	520250	31
OTC 1122: FPP1/2 do not match each other or IVS	520250	31
OTC 223: TPS2 voltage high	520251	3
OTC 222: TPS2 voltage low	520251	4
OTC 509: IAC coil open/short	520252	5
OTC 508: IAC ground short	520252	6
OTC 1171: MegaJector delivery pressure higher tha	520260	0
OTC 1172: MegaJector delivery pressure lower than	520260	1
OTC 1174: MegaJector voltage supply high	520260	3
OTC 1175: MegaJector voltage supply low	520260	4
OTC 1176: MegaJector internal actuator fault detect	520260	12
OTC 1177: MegaJector internal circuitry fault detecti	520260	12
OTC 1178: MegaJector internal comm fault detectio	520260	12
OTC 1173: MegaJector comm lost	520260	31
OTC 1531: Gov1/2/3 interlock failure	520270	31
OTC 1182: Fuel impurity level high	520401	0
OTC 11: Intake cam/ distributor position error	520800	7
OTC 24: Exhaust cam position error	520801	7
OTC 1183: MegaJector autozero / lockoff failure	520803	31

SECTION SIX: PARTS LISTING & SCHEMATICS

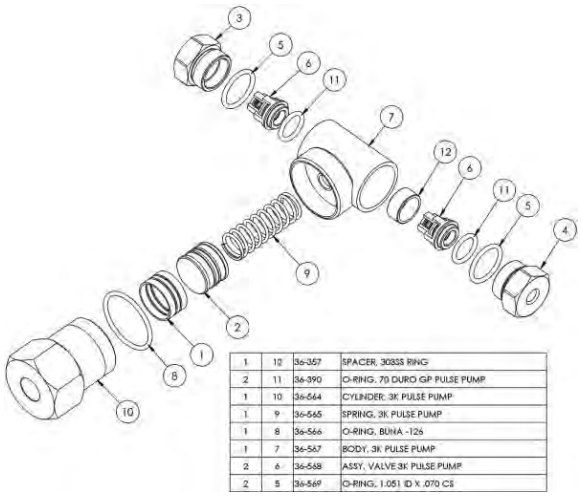
INCLUDE PAGE NUMBERS ALPHABET-IZE THIS LIST

CHEMICAL PUMP

⚠WARNING Turn Truck Mount off and allow to cool before performing any maintenance.

The Chemical Pump should be rebuilt every 1,000 hours or as needed. This involves changing the check valves, replacing the o-rings, and inspecting the piston. DO NOT attempt to reuse o-rings after the check valves have been removed. Replace all o-rings when servicing check valves.

Picture of steps or what to do



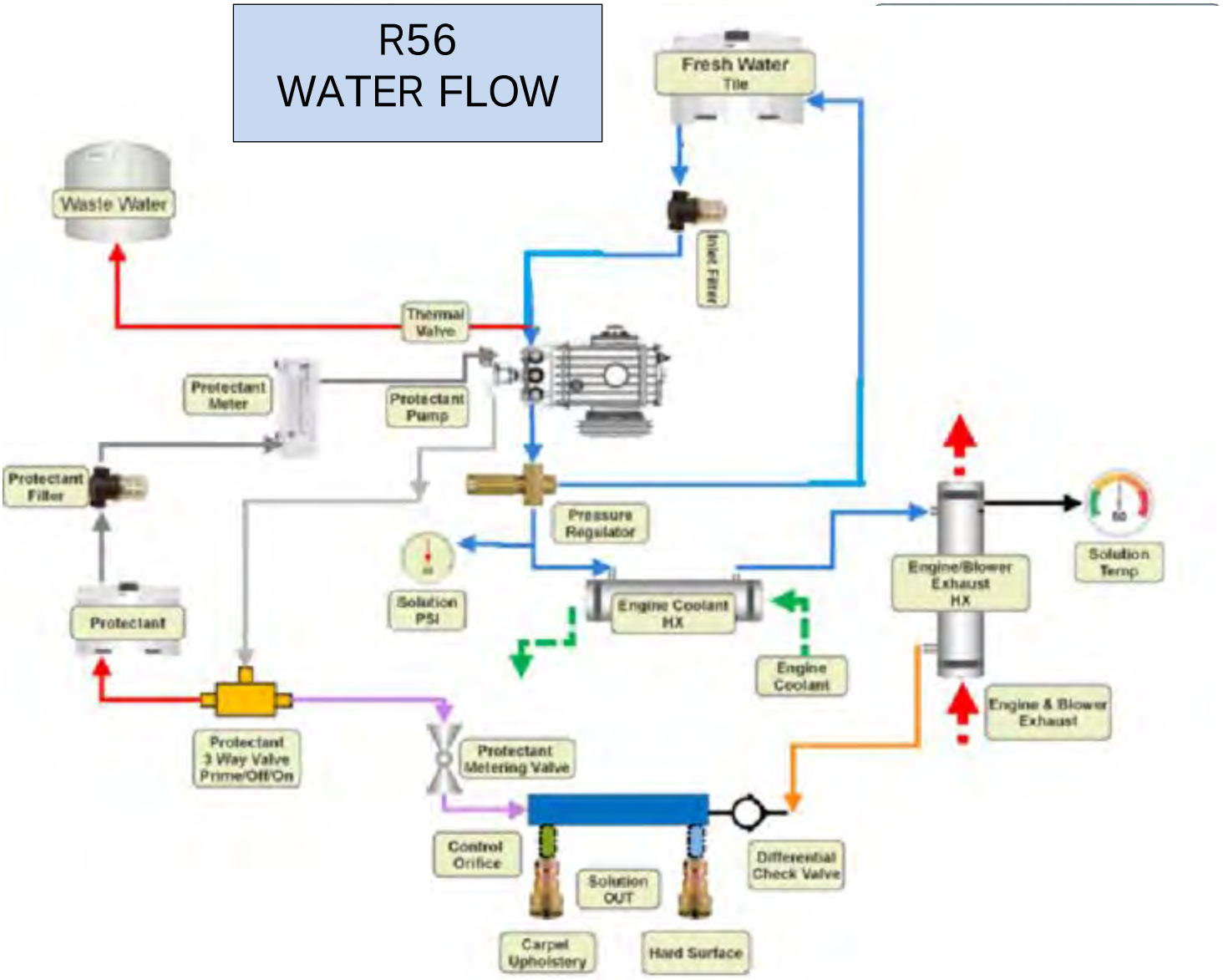
1	12	36-357	SPACER, 303SS RING
2	11	36-390	O-RING, 70 DURO GP PULSE PUMP
1	10	36-564	CYLINDER, 3K PULSE PUMP
1	9	36-565	SPRING, 3K PULSE PUMP
1	8	36-566	O-RING, BUNA -126
1	7	36-567	BODY, 3K PULSE PUMP
2	6	36-568	ASSY, VALVE 3K PULSE PUMP
2	5	36-569	O-RING, 1.051 ID X .070 CS

SOLUTION MANIFOLD DIFFERENTIAL CHECK VALVE

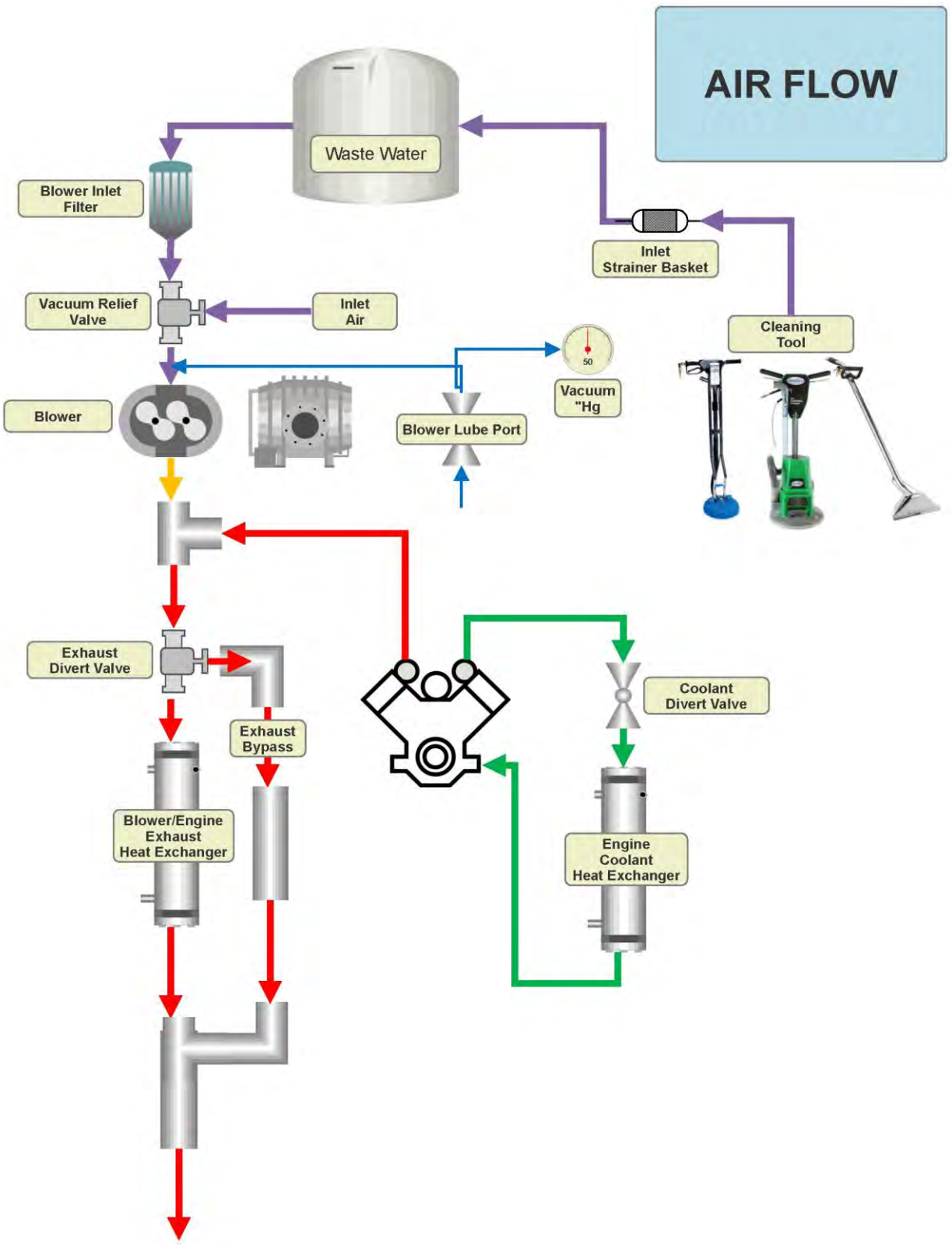
⚠WARNING Turn Truck Mount off and allow to cool before performing any maintenance.

If your Chemical Meter is reading less than 4 GPH, check your differential check valve for wear and replace as necessary. Replace at 1,000 hours with the Chemical pump.

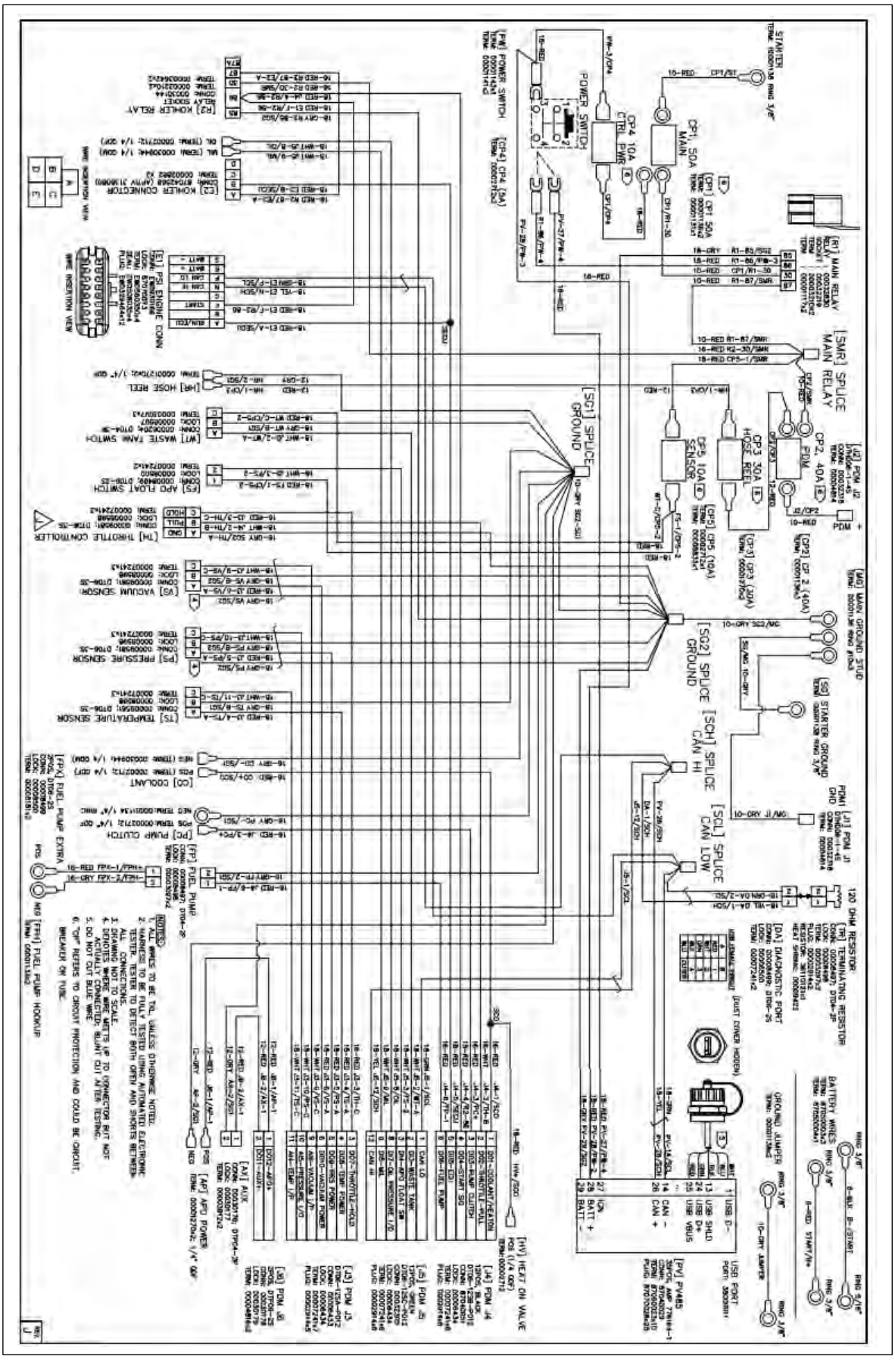
WATER FLOW


R56
WATER FLOW
Fresh Water
Tile
Waste Water
Inlet Filter
Thermal Valve
Protectant Meter
Protectant Pump
Protectant Filter
Pressure Regulator
Solution PSI
Engine Coolant HX
Engine/Blower Exhaust HX
Solution Temp
Protectant
Engine Coolant
Engine & Blower Exhaust
Protectant 3 Way Valve Prime/Off/On
Protectant Metering Valve
Control Orifice
Solution OUT
Differential Check Valve
Carpet Upholstery
Hard Surface

AIR FLOW


AIR FLOW
Waste Water
Blower Inlet Filter
Inlet Strainer Basket
Vacuum Relief Valve
Inlet Air
Cleaning Tool
50
Vacuum "Hg
Blower
Blower Lube Port
Exhaust Divert Valve
Coolant Divert Valve
Exhaust Bypass
Blower/Engine Exhaust Heat Exchanger
Engine Coolant Heat Exchanger

WIRING DIAGRAM



R-SERIES WARRANTY REGISTRATION FORM

This warranty registration form must be completed and returned within 10 days of console installation.
Return this form by clicking on the submit button or send to trucksales@aerotechmfg.com

DISTRIBUTOR NAME:		
ADDRESS:		
CITY:	STATE:	ZIP CODE:
CONTACT:	PHONE:	
EMAIL:	FAX:	

INSTALLATION DATE:
UNIT MODEL #
UNIT SERIAL #
HOSE REEL MOTOR SERIAL #

END USER COMPANY NAME:		
ADDRESS:		
CITY:	STATE:	ZIP CODE:
CONTACT:	PHONE:	
EMAIL:		

The model and serial number of your Truck Mount is located on the front left side of the frame as shown here.

SUBMIT WARRANTY REGISTRATION