



Product Owner's Manual
Manual del propietario del producto
Manuel du propriétaire du produit



M-150S Methanol

12V (DC)

Methanol Fuel Transfer Pump

Bomba de Transferencia de Combustible de Metanol

Pompe de Transfert de Carburant au Méthanol

Models: M-150S Methanol

Thank you for choosing Great Plains Industries as your preferred brand! Our team places innovation, precision, and care into every product made, providing you with the best total value. This manual contains critical product information.

Save these instructions and observe all safety information to prevent personal injury or property damage. See back cover for warranty and customer support details.

DO NOT RETURN THIS PRODUCT TO THE STORE!

Please contact Great Plains Industries, Inc. before returning any product. If you are missing parts, or experience problems with your installation, contact our Customer Support Department. We will be happy to assist you.

EN

¡Gracias por elegir Great Plains Industries como su marca preferida! Nuestro equipo pone innovación, precisión y cuidado en cada producto fabricado, proporcionándole el mejor valor total. Este manual contiene información crítica del producto. Guarde estas instrucciones y observe toda la información de seguridad para evitar lesiones personales o daños materiales. Consulte la contraportada para obtener detalles sobre la garantía y el soporte al cliente.

¡NO DEVUELVA ESTE PRODUCTO A LA TIENDA!

Comuníquese con Great Plains Industries, Inc. antes de devolver cualquier producto. Si le faltan piezas o experimenta problemas con su instalación, comuníquese con nuestro Departamento de atención al cliente. Estaremos encantados de ayudarle.

ES

Merci d'avoir choisi Great Plains Industries comme votre marque préférée! Notre équipe place l'innovation, la précision et le soin dans chaque produit fabriqué, vous offrant la meilleure valeur totale. Ce manuel contient des informations critiques sur le produit. Conservez ces instructions et respectez toutes les informations de sécurité pour éviter les blessures corporelles ou les dommages matériels. Consultez la couverture arrière pour obtenir des détails sur la garantie et le support client.

NE PAS RENVoyer CE PRODUIT AU MAGASIN !

Veuillez contacter Great Plains Industries, Inc. avant de retourner un produit. S'il vous manque des pièces ou si vous rencontrez des problèmes avec votre installation, contactez notre service d'assistance à la clientèle. Nous serons heureux de vous aider.

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Call / Llamar / Appel: 800-835-0113 or 316-686-7361

Email: GPI-GPROtech@gplains.com

Website: gpi.net

SAVE / GUARDAR / CONSERVEZ

Model / Modelo / Modèle #: _____

Serial / Serie / Série #: _____

Date / Fecha / Date: _____

BEFORE YOU BEGIN

Fuel Compatibility Statement

- This fuel pump is designed, tested and approved for use with methanol. Please take all due precautions when handling this flammable liquid
- Do not use this pump for dispensing any liquids other than those for which it was designed. To do so may damage the pumps components and will void the warranty.

Power Source Requirements:



- This manual covers 12 volt DC electric gear pump model M-150S Methanol.
- Model M-150S Methanol should be connected to a 12-volt DC power source.
- Do not attempt connection of any pump to a 115-volt AC or 230-volt AC power source.

Tools Needed:

- Adjustable Wrench, Pipe Wrench, Pliers, Utility Knife, Wire Crimper/Stripper, and Thread Tape
- Diesel Exhaust Fluid (DEF). Not compatible with petroleum-based liquids. DO NOT USE WITH FLAMMABLE LIQUIDS.
- For use with Diesel Exhaust Fluid (DEF), Antifreeze, Windshield Wash Fluid, Ammonium Sulfate, Non-Potable Water, and other water-based chemicals. See wetted materials list. Not compatible with petroleum-based liquids.

Contents:



- (1) 12-volt DC Fuel Transfer Pump with Spin Collar, (1) Gasket and (1) Tank Adapter
- (1) 18 foot (5.5 m) Power Cord with (1) Fuse Assembly, (2) Ring Terminals and (1) Wire Connector
- (1) Lockable Nozzle Holder

GENERAL SAFETY INSTRUCTIONS

IMPORTANT: It is your responsibility to:

- Know and follow applicable national, state and local safety codes pertaining to installing and operating electrical equipment for use with flammable liquids.
- Know and follow all safety precautions when handling petroleum fuels.
- Ensure that all equipment operators have access to adequate instructions concerning safe operating and maintenance procedures.

Observe all safety precautions concerning safe handling of petroleum fuels

SYMBOLS



Description of imminent hazard and failure to avoid hazard will result in death.



Description of hazard and possible resulting injuries or death.



Description of hazard and possible resulting injuries.



This symbol indicates a general warning to the user. See additional specific warnings.



This symbol indicates electrical shock hazard. Follow proper installation and maintenance instructions in this manual.



This symbol indicates hot surface. Take care to avoid coming into contact with hot surface.



Owner's manual must be read before using, inspecting, or servicing this product.



Disconnect power when product is unattended or in the case of a malfunction. Disconnect power before any inspection, servicing, or maintenance.



To prevent physical injury or property damage, observe precautions against fire or explosion when dispensing fuel. Do not operate the system in the presence of ignition sources such as, but not limited to: open flames, lighted cigarettes, running or hot engines, gas or electric heaters.



GENERAL SAFETY INSTRUCTIONS (CONTINUED)

SAFETY WARNINGS

⚠ DANGER

To prevent physical injury or property damage, observe precautions against fire or explosion when dispensing fuel. Do not operate the system in the presence of any source of ignition including running or hot engines, lighted tobacco products, gas or electric heaters, or any type of electronic device. A spark can ignite fuel vapors.

⚠ DANGER

Observe precautions against electrical shock when operating the system. Serious or fatal shock can result from operating electrical equipment in damp or wet locations.

⚠ DANGER

Observe precautions against electrical shock when servicing the pump. Always disconnect power before repairing or servicing. Never apply electrical power to the system when any of the cover plates are removed.

⚠ WARNING

To ensure safe operation, all fuel transfer systems must be properly grounded. Proper grounding means a continuous metal-to-metal contact from one component to the next, including tank, tank mount, pump, meter, filter, hose and nozzle. Care should be taken to ensure proper grounding during initial installation and after any service or repair procedures. For your safety, please take a moment to review the warnings below.

⚠ WARNING

Inspect external pump wiring regularly to make sure it is correctly connected. To avoid electrical shock, use extra care when connecting the pump to power.

⚠ WARNING

Avoid prolonged skin contact with petroleum fuels. Use protective goggles, gloves and aprons in case of splashing or spills. Change saturated clothing and wash skin promptly with soap and water.

⚠ WARNING

Securely fasten all wetted connections with the proper use of O-rings, or pipe sealant and thread tape. Leaking fuel may cause the potential for fire and explosion.

⚠ WARNING

Pump models that may be used in aviation refueling (PO/PX models) are NOT supplied with appropriate hose, nozzle, and suction pipe. These items must meet NFPA 407 guidelines.

For ground-based refueling only. Do not use in or on the aircraft. For use with aviation gasoline (AVGAS 100LL) and Jet A. User should consult NFPA 407 Standard for Aircraft Fuel Servicing for safety requirements during ground fuel servicing of aircraft using liquid petroleum fuels. This product has no actual or implied compliance with this standard.

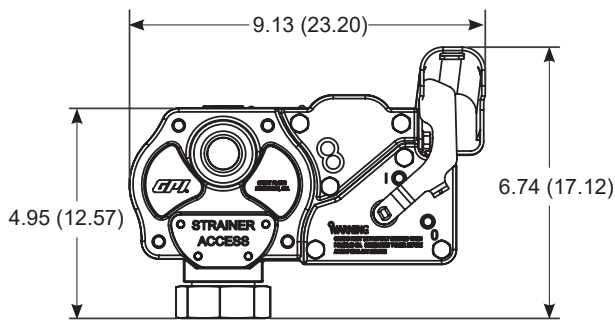
⚠ CAUTION

If using solvent to clean pump components or tank, observe the solvent manufacturer's recommendations for safe use and disposal.

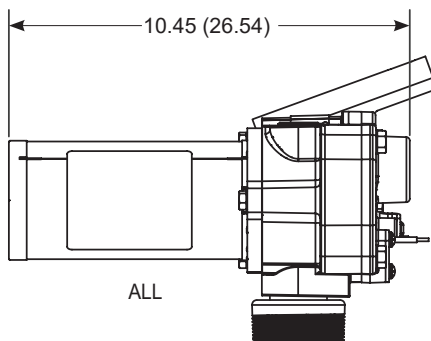
SPECIFICATIONS

	M-150S-METHANOL
Housing Material	Lightweight, corrosion-resistant, nickel plated, cast aluminum body, convenient union ring for easy installation.
Pump Rate	Up to 15 GPM (57 LPM)
Duty Cycle	30 minute ON, 30 minute OFF
Suction Lift	Manual Nozzle: Up to 5.5 ft. (1.7 m) Automatic Nozzle: Up to 4.8 ft. (1.5 m)
Operating Temperature	-20° F to 125° F (-29° C to 52° C)
Max Discharge Pressure	15 PSI (103.42 kPa)
Input	12-volt DC
Current Draw	18 amps
Motor	1900 RPM, 1/5 hp (150 watts)
Motor Approval	cULus Listed, Class I Div 2
Motor Protection	20 amp circuit breaker
Cord	18 ft. of 12 ga. (5.5 m)
Fuse	25 amp
Tank Adapter (Item D)	2 inch NPT
Inlet	1 inch NPT
Outlet	3/4 inch NPT

SPECIFICATIONS (CONTINUED)



M-150S-Methanol

**Figure 1**
in (cm)

INSTALLATION INSTRUCTIONS

⚠ WARNING

Coverplates protect the operator from moving parts. Never operate the pump without coverplates in place. Never apply electric power to the pump without coverplates in place. Always disconnect power before repairing or servicing

⚠ DANGER

If the pump is to be installed in a hazardous (classified) location, it must be installed by a licensed electrician and conform to all National, State, and Local codes. Including, but not limited to; NEC/CSA 22.1/ANSI/IEC/NFPA 70, 30, and 30A. You, as the owner, are responsible for seeing that the installation and operation of your pump complies with all applicable codes. Rigid conduits must be used to install wiring. Note that the lead wires are factory-sealed, isolating the motor from the junction box. Failure to follow these wiring instructions may result in death or serious injury from shock, fire or explosion.

NOTE: This pump is designed to self-prime with dry gears. Expect suction lift as follows:

Manual Nozzle: 6.7 feet (2.1 m) with Methanol

Automatic Nozzle: 5.8 feet (1.8 m) with Methanol

If you require a greater initial prime height, coat the gears with fluid by removing the plug on the top of the pump and pour a small quantity of motor oil into the gear cavity. Replace the plug and try again. A foot valve with pressure relief may be needed to maintain prime.

Install Tank Adapter and Suction Pipe

NOTE: For Aluminum Tank Installation - To prevent thread galling of aluminum fittings, always prepare the threads for assembly using an anti-seize compound such as Loctite® 567™, Herson® Driptop® 940 or equivalent.

1. Clean the tank interior of all dirt and foreign material.
2. For the suction pipe, a 1 in. steel pipe cut to length and threaded on one end may be used. Suction pipe should extend to within 3 inches of tank bottom.

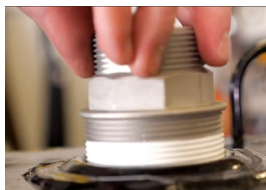


Figure 2



Figure 3



Figure 4



Figure 5

INSTALLATION INSTRUCTIONS (CONTINUED)

3. Wrap the threaded end of suction pipe with three or four turns of thread tape (see Figure 4). Thread the suction pipe into the bottom of the adapter and hand tighten until snug.

Install Pump on Tank

(for all models except M-150S-EM & M-150S-E-PO)

1. Clean the tank interior of all dirt and foreign material.
2. Carefully lift pump / suction pipe assembly and insert suction pipe into the tank opening.

While holding the spin collar gasket in place, position the pump spin collar onto the tank adapter and tighten using a pipe wrench, making sure the spin collar is not cross-threaded (see Figure 6). The spin collar measures 2.26 inches (5.74 cm) across flats.

NOTE: To prevent pressure buildup and possible fuel leaks, make sure the fuel tank is properly vented. A vent cap rated at 3 psi (6.90 kPa) or less is recommended.



Figure 6

INSTALLATION INSTRUCTIONS (CONTINUED)

Install Hose and Nozzle

NOTE: Hose and nozzle not supplied. Owner must supply accessories suitable for methanol.

1. Using pliers, remove the plastic plug from outlet port on front of pump. Wrap one end of the dispensing hose with three to four turns of thread tape and thread into outlet port (see Figure 7). Tighten securely using an adjustable wrench.
2. Wrap opposite end of hose with three or four turns of thread tape and thread into nozzle. Tighten securely using an adjustable wrench (see Figure 8).
3. Place the nozzle into the nozzle holder on the end of the pump motor housing. Note that the nozzle cannot be placed in the holder unless the pump switch is OFF (see Figure 9).



Figure 7



Figure 8



Figure 9

INSTALLATION INSTRUCTIONS (CONTINUED)

Connect to a Power Source

NOTE: Please consult the Owner's Manual for your vehicle before proceeding.

IMPORTANT: The pump is designed for use with a 12 Volt DC power source. Do not attempt installation on a 115 or 230 Volt AC system.

⚠ WARNING

Do not attempt to power the pump from vehicle wiring smaller than the cord gauge specified in the owners manual such as the cigarette lighter wire, as improperly sized wires could overheat and cause a fire.

IMPORTANT: Verify switch is in OFF position, then route the electrical wires to the source of the vehicle power system. Be sure to support the wires as necessary and protect them from sharp edges, heat, or anything that could damage the wires.

1. Remove electrical coverplate.
2. Insert the power cord through the 1/2 inch NPT connection on the back of the pump. Using wire nuts, connect the black wire to the black wire and the red wire to the red in the pump's electrical cavity. Position the wires inside the electrical cavity and tighten the strain relief grip securely. Make sure surfaces are clean. Install the electrical coverplate and tighten securely.
3. If the power cord provided is too long, disconnect from power and cut to desired length. Using a utility knife, carefully strip 3 to 4 inches (7.62 to 10.16 cm) of outer insulation from end of power cord. **DO NOT CUT INSULATION OF INNER WIRES.** Next, using wire strippers, remove 1/4 inch (6.35 mm) of insulation from the black and red power cord wires.
4. For a negative ground system, first disconnect the vehicle's ground wire, and then connect as follows: Using a wire stripper, carefully strip 1/4 inch (6.35 mm) of insulation from both ends of the fuse assembly wire.
5. Insert one end of the fuse assembly wire into the wire connector and crimp. Insert the red power cord wire into the other end of the wire connector and crimp. Make sure the fuse assembly is positioned outside of hazardous areas and as close to the battery as possible (see Figure 10).
6. Using wire crimper, attach one ring terminal to the other end of the fuse assembly and one ring terminal to the end of the black power cord wire.
7. Connect the red wire/fuse assembly to the positive side of the battery (see Figure 10).
8. Connect the black power cord wire to the negative side of the battery.

NOTE: Connecting directly to the battery terminal or the end of the battery cable is recommended.



Figure 10

OPERATION

IMPORTANT: Always follow safety precautions when operating this equipment. Review the safety instructions.

⚠ DANGER

To prevent physical injury or property damage, observe precautions against fire or explosion when dispensing fuel. Do not operate the system in the presence of any source of ignition including running or hot engines, lighted tobacco products, gas or electric heaters, or any type of electronic device. A spark can ignite fuel vapors.

⚠ CAUTION

Before each use, repair leaks around seals or connections. Make sure hoses are in good condition and connections are tight. If damaged, replace hoses before use.

NOTE: Make sure the work area is dry.

⚠ WARNING

Make sure the pump is properly grounded. Repair any corroded or damaged wiring before use.

NOTE: Ensure the tank contains enough fuel.

IMPORTANT: Make sure the fuel is not contaminated with debris. Tighten loose tank lids regularly.

Dispensing Fuel

Turn on the pump by removing the nozzle from the holder and pushing up the switch lever. Insert the nozzle into the receiving tank and squeeze the handle to start fuel flow. When done, release the nozzle handle, turn the pump off and return the nozzle to its holder.

IMPORTANT: This pump is designed to be self-priming. If fuel is not delivered within 15 to 20 seconds, turn the pump off and refer to priming information in the Troubleshooting Section on our website.

⚠ CAUTION

An automatic bypass valve prevents pressure build up when the pump is on with the nozzle closed. To avoid pump damage, do not run the pump more than 10 minutes with the nozzle closed. Leaving the pump on with the nozzle closed for more than 10 minutes can damage the pump components and will void the warranty.

⚠ CAUTION

Never leave the pump running without fluid. Dry running can damage the pump components, and will void the warranty.

IMPORTANT: This is an intermittent duty pump, after running the pump for a maximum of 30 minutes, allow it to cool for 30 minutes.

Motor Protector

NOTE: The M-150S pumps have a motor protector that provides added protection against motor damage. It must be reset manually.

1. If the motor protector trips, reset by turning the switch OFF. Let the pump cool then turn ON again. If the motor protector trips again, see the Troubleshooting Section on our website.

MAINTENANCE

NOTE: This pump is designed for minimum maintenance. The motor bearings are self-lubricating. Inspect the pump and components regularly for leaks and make sure the hose and power cord are in good condition. If damaged, replace before use. Keep the pump exterior clean to help identify leaks.

IMPORTANT: Do not use this pump for water, chemicals or herbicides. Dispensing any fluid other than those listed in the owner's manual may damage the pump (see BEFORE YOU BEGIN: Fueling Compatibility Statement at front of the owner's manual). Use of the pump with unauthorized fluids will void the warranty.

Clean or Replace Strainer

1. Turn the pump off and disconnect from power. Remove the strainer coverplate. Remove the inlet strainer and inspect for damage or clogs (see Figure 11). Clean the strainer with a soft-bristled brush and solvent (see Figure 12). If the strainer is very dirty, compressed air may be used. If damaged, replace the strainer.
2. Place the strainer in the cavity. Clean the coverplate and O-ring. Coat the O-ring lightly with grease. Ensure the coverplate O-ring is properly seated (see Figure 13) and tighten the strainer coverplate.

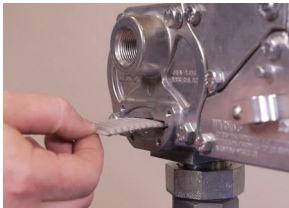


Figure 11



Figure 12



Figure 13

MAINTENANCE, TROUBLESHOOTING, AND REPAIR (CONTINUED)

Scan the QR code below for more maintenance,
troubleshooting, and repair resources.

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Escanee el código QR a continuación para obtener más
recursos de mantenimiento, solución de problemas y
reparación.

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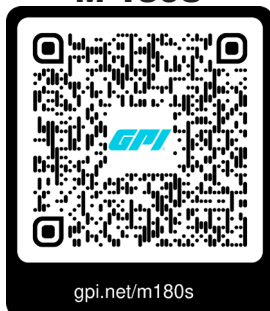
Scannez le code QR ci-dessous pour accéder à des
ressources supplémentaires sur la maintenance, le
dépannage et la réparation.

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M-150S



M-180S



M-240S



NOTES/ NOTAS/ REMARQUES

[illegible]

Limited Warranty Policy

Great Plains Industries Inc. warrants the goods manufactured shall be free from defects of material and workmanship.

Specific warranty details for individual products can be found at www.GPI-GPRO.com or by scanning the QR code below.

GARANTÍA

Política de garantía limitada

Great Plains Industries Inc. garantiza que los productos fabricados estarán libres de defectos de materiales y mano de obra.

Los detalles específicos de la garantía para productos individuales se pueden encontrar en www.GPI-GPRO.com o escaneando el código QR que aparece a continuación

GARANTIE

Politique de garantie limitée

Great Plains Industries Inc. garantit que les produits fabriqués seront exempts de défauts de matériaux et de fabrication.

Les détails spécifiques de la garantie pour les produits individuels peuvent être consultés à l'adresse suivante www.GPI-GPRO.com ou en scannant le code QR ci-dessous

