VEVOR

Upgrade · The Home Creator Way

KEX16

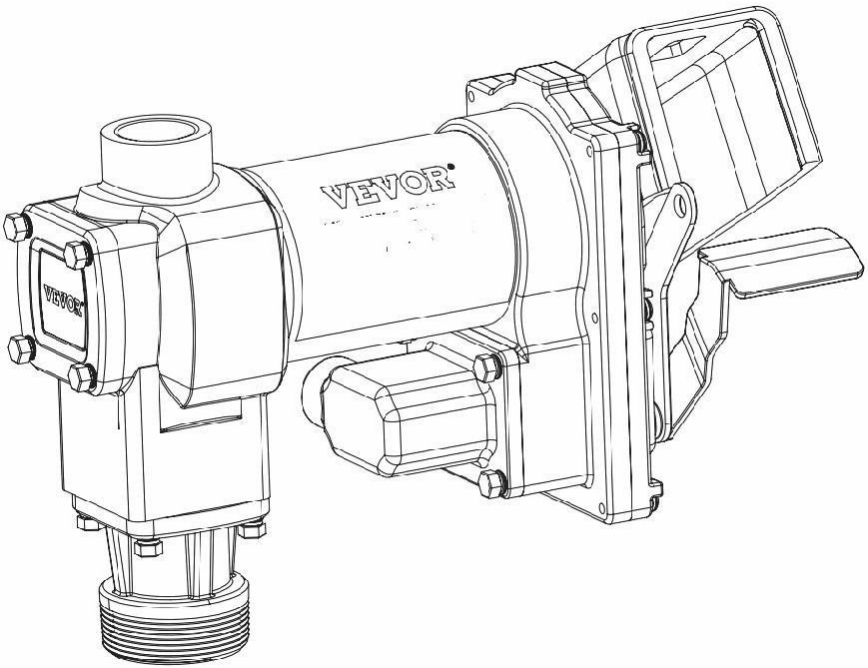
VEVOR Support Center

FUEL TRANSFER PUMP (Package)

MODEL:KEX16

VEVOR | Upgrade
The Home Creator Way

MODEL: KEX-16



This is the original instruction, please read all manual instructions carefully before operating. VEVOR reserves a clear interpretation of our user manual. The appearance of the product shall be subject to the product you received. Please forgive us that we won't inform you again if there are any technology or software updates on our product.

	Warning-To reduce the risk of injury, user must read instructions manual carefully.
	This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1)This device may not cause harmful interference, and (2)this device must accept any interference received, including interference that may cause undesired operation.
	This product is subject to the provision of European Directive 2012/19/EC. The symbol showing a wheelie bin crossed through indicates that the product requires separate refuse collection in the European Union. This applies to the product and all accessories marked with this symbol. Products marked as such may not be discarded with normal domestic waste, but must be taken to a collection point for recycling electrical and electronic devices

Warning-To reduce the risk of injury, user must read instructions manual carefully.The product complies with relevant standards and regulations. Installation of this device must comply with all applicable regulations, and it should only be operated in well-ventilated areas. Please read the user manual before installing and using this equipment.This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.Children shall not play with the appliance."This appliance is intended to be used in gas station, farm.Please use the product according to the intended use, warn of potential injury from misuse.Always disconnect the appliance from the supply if it is left unattended and before assembling, disassembling or cleaning.WARNING: Only use the supply unit provided with this appliance.Warning: Only use an external power supply that meets the specifications."Do not use the pump in flammable or explosive areas. Keep away from flames, sparks, mobile phones and static sources during operation.

Use only for the specified type of fuel. Do not use for unspecified flammable liquids.

Read and understand all instructions before installation and operation. Non-professionals are prohibited from installing, repairing or modifying the pump.

Ensure the power supply voltage matches the nameplate rating before connection. Do not reverse or incorrectly connect power.

The pump must be properly grounded during operation to prevent static electricity buildup that may cause fire or explosion.

Do not continue to use the pump if leakage, damage, abnormal noise or overheating occurs.

Do not smoke, use open flames or spark-generating tools during fuel transfer.

Ensure hoses and fittings are tightly sealed to prevent fuel leakage. Stop operation immediately if leakage is found.

Keep children away from the operating area. Do not allow children to operate or play with the equipment.

Do not leave the pump unattended while in operation.

Electrical connections must comply with explosion-proof and safety regulations. Do not plug or unplug power in hazardous areas.

If fuel contacts skin or eyes, flush with water immediately. If swallowed, do not induce vomiting and seek medical help at once.

Disconnect power, relieve pipeline pressure and clean residual fuel before maintenance.

The pump is intended for specified fuel transfer only. Do not use for other purposes."

SAFETY INFORMATION



WARNING! Electrical wiring should be performed ONLY by a licensed electrician in compliance with local, state, and national electrical code NEC/ANSI/ NFPA 70, NFPA 30, and NFPA 30A, as appropriate to the intended use of the pump. Threaded rigid conduit, sealed fittings, and conductor seal should be used where applicable. The pump must be properly grounded. Improper installation or use of this pump can result in serious bodily injury, or death!



WARNING! To ensure safe and proper operation of your equipment, it is critical to read and adhere to all of the following safety warnings and precautions. Improper installation or use of this product can cause serious bodily injury or death!

- NEVER smoke near the pump, or use the pump near open flames when pumping a flammable liquid! Fire can result!
- A filter should be used on the pump outlet to ensure no foreign material is transferred to the fuel tank.
- Threaded pipe joints and connections must be sealed with the appropriate sealant or sealant tape to minimize the possibility of leaks.
- Storage tanks must be securely anchored to prevent shifting or tipping when full or empty.
- To minimize static electricity build up, use only static wire conductive hose when pumping flammable fluids, and keep the fill nozzle in contact with the container being filled during the filling process.
- The pump motor is equipped with thermal overload protection; if overheated, the motor will shut off to prevent damage to the windings.



WARNING! This product shall not be used to transfer fluids into any type of aircraft.



WARNING! This product is not suited for use with fluids intended for human consumption or fluids containing water.

INSTALLATION

16GMP fuel transfer pump is designed to be mounted on a skid tank using the threaded inlet flange supplied with the pump. Your pump features an integral bypass valve to recirculate the fluid when the pump is operating with the nozzle closed.



WARNING! This product is not suited for use with fluids intended for human consumption or fluids containing water.



CAUTION! Do not use additional check valves or foot valves unless they have a proper pressure relief valve built into them. Note that additional check valves will reduce rate of flow.

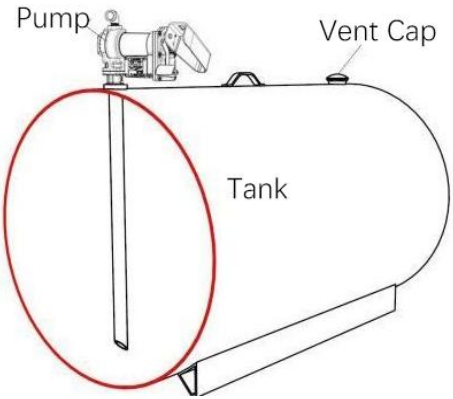
CAUTION! A pressure retaining fill cap can be used to reduce fuel loss through evaporation, but note that it will reduce the flow rate.

CAUTION! Threaded pipe joints and connections must be sealed with the appropriate sealant or sealant tape to prevent the possibility of leaks.

WARNING! 16GMP fuel transfer pumps are designed for use with stationary and mobile tank applications. While DC powered units are excellent choice for mobile applications, anchoring the tank to which the pump is mounted is paramount to ensure no movement in transit. Failure to secure the tank to the vehicle can cause uncontrolled movement, resulting in damage, injury, and potential fire.

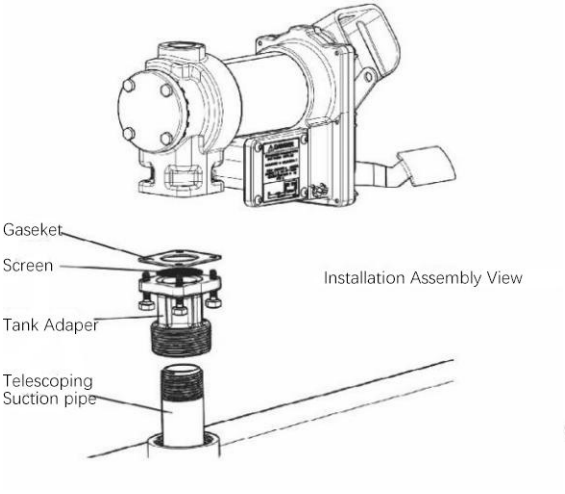
Typical Skid Tank Installation

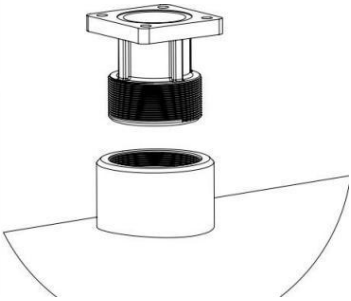
The pump mounts to the bung of a skid tank by way of the inlet flange. The suction tube threads into the bottom of the inlet flange, and must extend to a length that positions it at least 3” from the bottom of the tank. The skid tank should be equipped with a vent cap.



Materials:

- 1” telescoping suction pipe extended to a length that will extend to within 3” of the bottom of the tank when screwed into the tank adapter with the tank adapter screwed into the tank flange (see SKID TANK INSTALLATION diagram).
- Threaded pipe joint sealant appropriate for application.





Installation Procedure:

1. Thread the 1” pipe into the tank adapter. Seal threads liquid tight with appropriate sealant. (Figure 1)

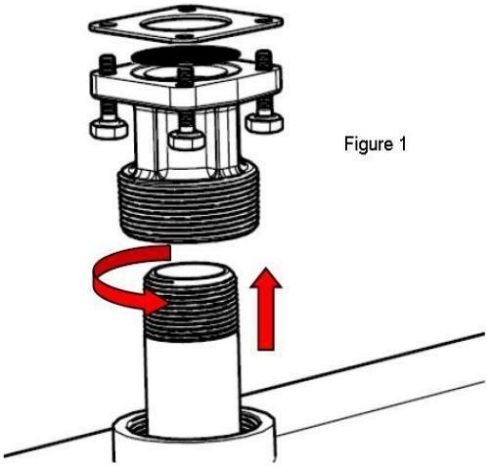


Figure 1

Typical Skid Tank Installation (cont’d)

2. Screw the inlet flange (with suction pipe) into the tank bung; seal threads liquid tight with appropriate thread sealant (Figure 2).

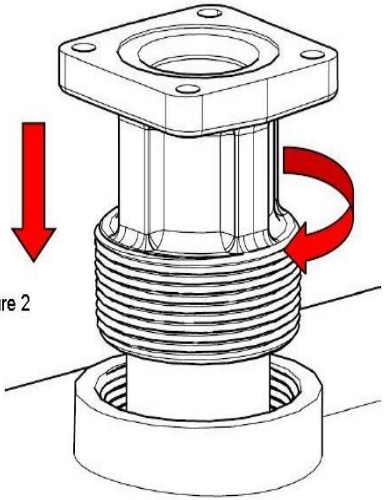
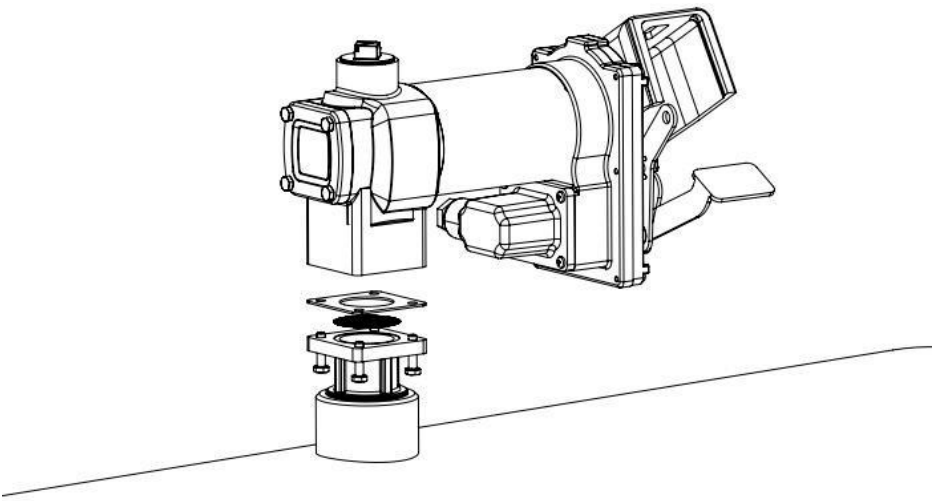


Figure 2

3. Mount the pump on the adapter; making sure the seal and screen are installed as shown. (Figure 3).



ELECTRICAL WIRING

CAUTION! DC powered pumps are designed to operate on either 12 or 24 VDC (depending on model). Where applicable, use the supplied battery cable to supply power to the pump from a 12 or 24 VDC battery. A 40 amp fuse (20 amp fuse on 24 VDC motors) should be installed on the battery cable to protect the wire in case of electrical short.

CAUTION! Voltage drop in wiring varies depending on the distance from the battery to the pump and the gauge of the wire used. If the distance is greater than 20′ , refer to national, international, or local electrical codes to ensure the wire is of the correct size for this application.

Instructions Before Proceeding With DC Wiring

The pump needs to be electrically bonded to supply tank or vehicle frame. To electrically bond pump, remove green bonding screw located next to junction box cover. Insert this screw through eyelet of furnished green bonding wire assembly and refasten it securely to the pump. The other end of the wire is to be stripped of insulation and the bare wire securely bonded to the vehicle / trailer frame or skid tank.

WARNING! Do not connect the positive or negative power to the green screw or wire as this could cause a fire.

Wiring Instructions

1. Remove pump's electrical junction box cover and straighten the 2 wires to make
   the stripped wire ends accessible outside of the junction box.

2. Screw furnished cable connector into NPT* conduit opening in pump junction box.

3. Strip 6 inches of the outer covering from one end of the furnished

electrical cable being careful not to damage the black and red wire insulation.

4. Loosen cable connector nut and pass the stripped end of the furnished cable through the cable connector. Tighten the cable connector nut.

5. Strip 1⁄2 inch of the insulation from the ends of the red and black cable wires. Using the furnished wire nuts, connect these wires to the pump wires matching the colors. Be sure no bare wire is exposed.

6. Fold wires into junction box and replace cover making sure the gasket is in place. Make sure all screws are seated so there is no space between the cover and the junction box.

Wiring To A Vehicle Electrical System

1. Pass the electrical wires to the source of the vehicle power system, supporting the wires as necessary and protecting them from sharp edges, heat, and anything that could damage the wires.

2. To determine if the vehicle electrical system is negative (-) or positive (+) ground, check the battery marking of the terminal that is wired to the vehicle frame or motor block. The red wire from the pump will connect to positive battery post and the black wire from the pump will connect to negative battery post.

3. Attach one end of the fuse holder to the end of the ungrounded wire. Make a solid electrical connection with the other end of the fuse holder to the ungrounded side of the battery, as close to the battery as possible. Make a solid electrical connection to the grounded side of the battery with the remaining wire. The battery terminal or the end of the battery cable is recommended.

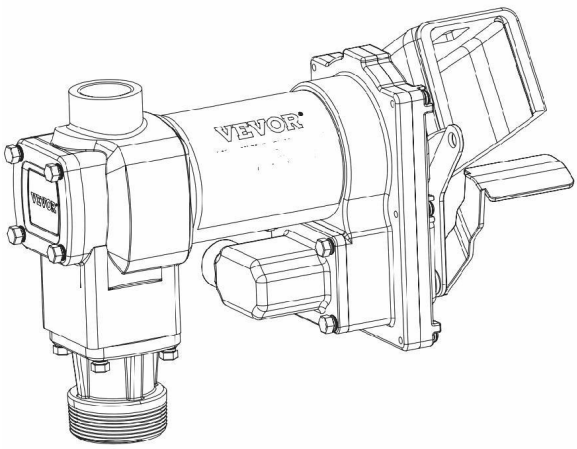
4. Check all connections to make sure they are connected per instructions and all electrical codes. Install the 40 amp fuse (20 amp fuse in 24 VDC installations) in the fuse holder. The installation is now complete.

WARNING! Do not attempt to power the pump from vehicle wiring smaller than 12 gage such as the cigarette lighter wire because these thin wires could overheat and cause a fire.

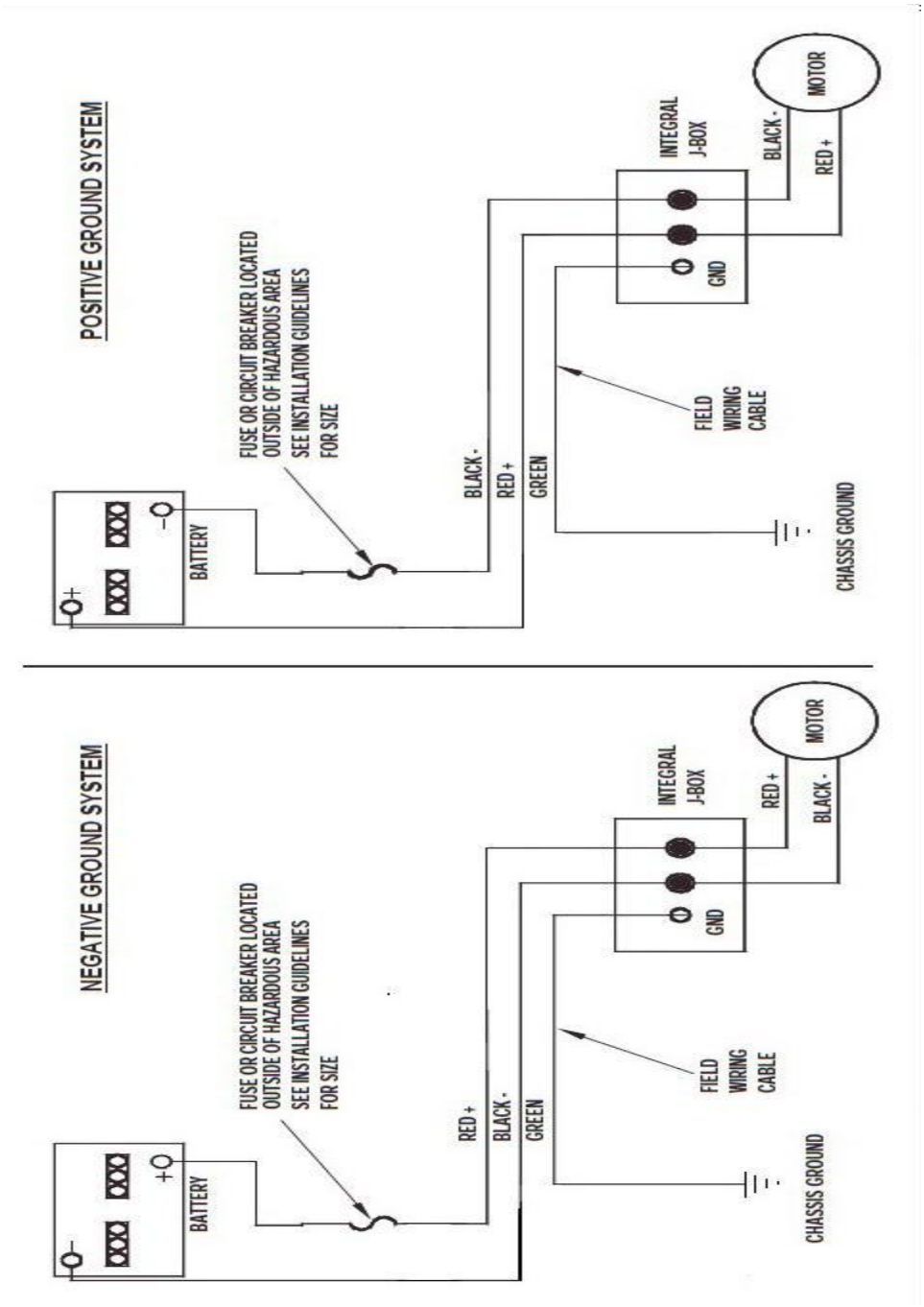
DC Wiring (cont'd)

For Skid Mounted Tanks

1. Pass the electrical wires to the power source, supporting the wires as necessary and protecting them from sharp edges, heat and anything that could damage the wires.
2. Attach one end of the fuse holder to the ***red*** pump wire, ***as close to the battery /power source as possible.*** Make a solid electrical connection to the ***positive*** terminal of the power source with the other end of the fuse holder. Make a solid connection with the ***black*** pump wire to the ***negative*** terminal of the power source.
3. Check all connections to make sure they are connected per instructions and all electrical codes. Install the 40 amp fuse (20 amp fuse in 24 VDC installations) in the fuse holder. The installation is now complete.



DC Wiring Diagram



OPERATING INSTRUCTIONS

WARNING! Always keep the nozzle in contact with the container being filled during the filling process to minimize the possibility of static electricity build up.

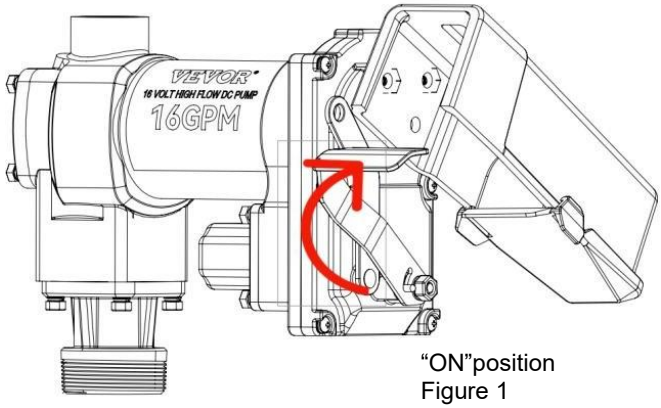
1. If so equipped, reset meter to “0” (do not reset while in use as this will cause damage to the meter).

2. Remove dispensing nozzle from nozzle boot.

3. Move the switch lever to the “ON” position to power the pump (figure 1).

4. Insert the dispensing nozzle into the container to be filled.

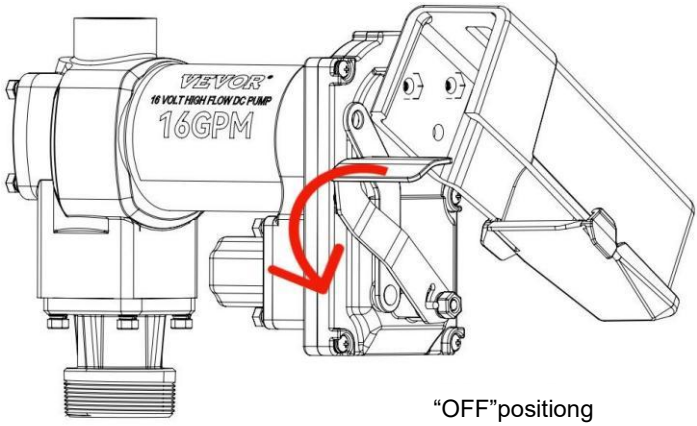
5. Operate the nozzle to dispense fluid; release nozzle when the desired amount of fluid has been dispensed.



“ON”position
Figure 1

6. Move switch lever to the “OFF” position (Figure 2) to turn off the pump.

7. Remove the dispensing nozzle from the container being filled and store it in the nozzle boot.

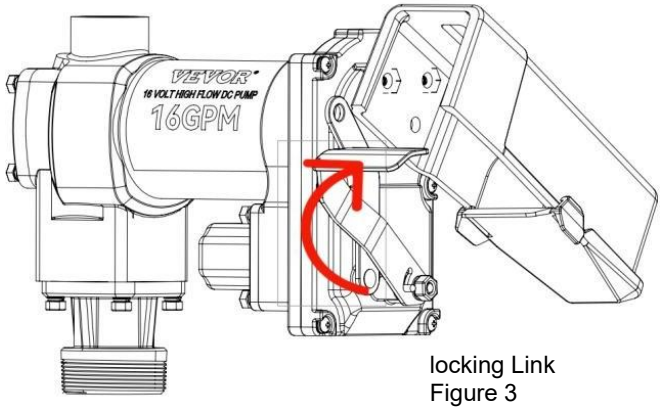


“OFF”positiong
Figure 2

Padlocking

Your pump nozzle can be padlocked to the pump for added security. With the pump turned off, and the nozzle in the stored position, a padlock can be inserted through the locking link and the nozzle handle.

The locking link is located on the nozzle side of the pump, and can be pivoted into position to work with a variety of nozzles (Figure 3).



locking Link
Figure 3

TROUBLESHOOTING

The following troubleshooting guide is provided to offer basic diagnostic assistance in the event you encounter abnormal service from your 20GMP fuel transfer product.



WARNING! DO NOT open or attempt to repair the motor on your pump. Return it to the place of purchase for service. Opening the motor case can compromise the integrity of the Explosion Proof construction and will void any existing warranty and certification.



WARNING! Be certain all power to the pump is disconnected prior to performing any service or maintenance.

Symptom	Cause	Cure
Pump won't prime.	1. Suction line problem.	Check for leaks or obstructions in suction line.
	2. Bypass valve open.	Remove and inspect valve; must move freely & be free of debris.
	3. Vanes sticking.	Check vanes and slots for nicks, burrs and wear.
	4. Excessive rotor or vane wear.	Inspect rotor & vanes for excessive wear or damage; replace if necessary.
	5. Vapor Lock.	Reduce vertical and horizontal distance from pump to liquid; remove automatic nozzle.
Low capacity.	1. Excessive dirt in screen.	Remove and clean screen.
	2. Suction line problem.	Check suction line for leaks or restrictions; it may be too small, too long or not airtight.
	3. Bypass valve sticking.	Remove and inspect valve; must move freely & be free of debris.
	4. Outlet blocked.	Check pump outlet, hose, nozzle & filter for blockage.
	5. Vanes sticking.	Check vanes and slots for wear.
	6. Excessive rotor or vane wear.	Inspect rotor & vanes for excessive wear or damage; replace if necessary.
	7. Hose or nozzle damage.	Replace hose or nozzle.
	8. Plugged filter.	Replace filter.
	9. Low fluid level.	Fill tank.
Pump runs slowly.	1. Incorrect voltage.	Check incoming line voltage while pump is running.
	2. Vanes sticking.	Inspect vanes and slots for nicks, burrs and wear.
	3. Wiring problem.	Check for loose connections.
	4. Motor problem.	Return to place of purchase.

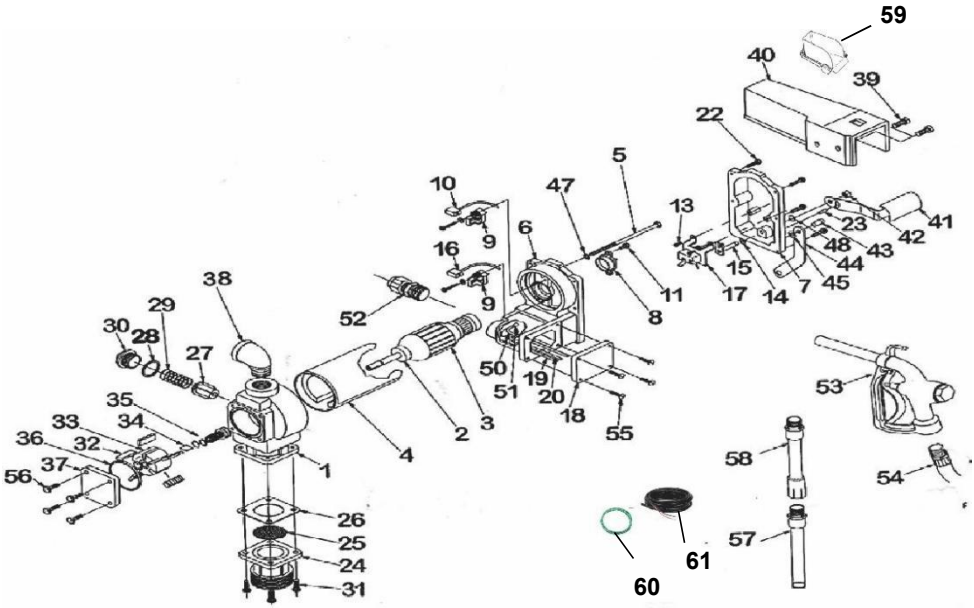
TROUBLESHOOTING (CONT'D)

Motor stalls / fuse blows or thermal protector trips repeatedly.	1. Bypass valve sticking.	Remove and inspect valve; must move freely & be free of debris.
	2. Low voltage.	Check incoming line voltage while pump is running.
	3. Excessive rotor or vane wear.	Check rotor & vanes for excessive wear or damage.
	4. Debris in pump cavity.	Clean debris from pump cavity.
Motor overheats.	1. Pumping high viscosity fluids.	These fluids can only be pumped for short periods of time (less than 30 minutes duty cycle).
	2. Clogged screen.	Remove and clean screen.
	3. Restricted suction pipe.	Remove and clean pipe.
	4. Motor failure.	Return to place of purchase.
	5. Pump rotor lock-up.	Clean and check pump rotor and vanes.
Motor Inoperative.	1. No power.	Check incoming power.
	2. Switch failure.	Replace switch .
	3. Motor failure.	Return to place of purchase.
	4. Thermal protector failure.	Return to place of purchase.
	5. Incorrect/loose wiring.	Check wiring.
Fluid leakage.	1. Bad o-ring gasket.	Check all o-ring gaskets.
	2. Dirty shaft seal.	Clean seal & seal cavity.
	3. Bad shaft seal.	Replace seal.
	4. Incompatible fluid.	Refer wetted parts list to fluid manufacturer.
	5. Loose fasteners.	Tighten fasteners.
Pump hums but will not operate.	1. Motor failure.	Return to place of purchase.
	2. Broken rotor key.	Remove all debris & replace key.

SECIFICATIONS

Model	Voltage	Input(W)	Flow Rate (GPM)	Inlet pipe specification （inch）	Outlet pipe specification （inch）	G.W. (kg)
MX102	DC12V	380	16	1	1	18.16

PARTS LIST



REF#	DESCRIPTION	OTY	REF#	DESCRIPTION	OTY
1	PUMPHOUSING	1	34	ROTOR KEY	1
2	BALL BEARING	2	35	ROTOR COVER	1
3	RMATURE ASSEMBLY	1	36	ROTOR COVER GASKET	1

4	MOTOR FRAME/MAGNET ASSEMBLY	1	37	SEAL ASSEMBLY	1
5	1/4-2×5THRU-BOLT	2	38	STEEL ELBOW	1
6	MOTOR CASTING ASSEMBLY	1	39	5/16-18×3/4HHCS	1
7	SWITCH PLATE WITH BUS HING	1	40	NOZZLE COVER	2
8	THERMAL PROTECTOR	1	41	SWITCH LEVER	1
9	BRUSH HOLDER ASSEMBLY	2	42	5/15×18LOVK NUT	1
10	NEGATIVE BRUSH ASSEMBLY	1	43	#14×S/8DRVE SCREW	1
11	#8-32×1/2TORX	1	44	LOCKING LINK	1
12	-	-	45	1/4 SPRING WASHER	1
13	#8-32×3/8 TORX	2	46	ECT LOCK WASHER	1
14	5/16 SPRING WASHER	1	47	-	-
15	SWITCH SHAFT ASSEMBLY	1	48	5/16 RETAINING RING	2
16	POSITIVE BRUSH ASSEMBLY	1	49	GROUND WIRE	1
17	LINE SWITCH	1	50		
18	JUNCTION BOX COVER	1	51	#832×3/8GROUND SCREW	1
19	NEGATIVE WIRE LEAD	1	52	CABLE CONNECTOR	1
20	POSITIVE WIRE LEAD	1	53	NOZZLE	1
21	-	-	54	HOSE	1
22	10-24×3/4 TORX	6	55	10-24×.50TORX	4
23	5/32×1/2PIN	1	56	1/4-20×.5HHCS	4
24	INLET FLANGE	1	57	SUCTION PIPE	1
25	SCREEN	1	58	SUCTION PIPE EXTENSION	1
26	INLET GASKET	1	59	OIL RECEIVING BOX	1
27	BYPASS VALVE	1	60	Ground Wire	1
28	BYASS VALVE GASKET	1	61	Power Cord	1
29	BYPASS SPRING	1			
30	BYPASS CAP	1			
31	1/4-20×3/4HHCS	1			
32	VANE	4			
33	ROTOR	5			

