EQ SYSTEMS®

AM DUAL LEG

Installation/Operation/Warranty Guide

Effective October 2010

EQ016R5

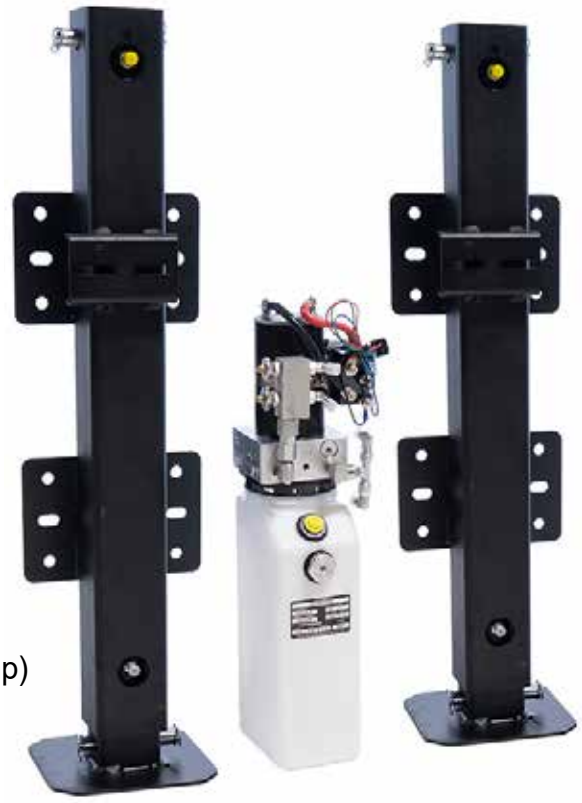
EQ SYSTEMS®

(800) 846-9659
EQSystems.us

AM SERIES

Dual Leg Trailer Jacks: 24,000 lb.Capacity, 20, 24, 30” Stroke

INSTALLATION



Tools Required for Installation

- Ratchet, sockets and wrench set
- Wire cutters/crimpers
- Electric drill and bits
- Screw gun bit
- Welding equipment (if welding leg in place)

Additional Parts Needed for Installation

- #4 gauge power wire (to connect battery +12V to the pump)
- # 4 gauge ground wire (to connect battery – 12V ground to pump)
- # 4 gauge ring terminals
- Loom clips (to secure switch and harness to the trailer)
- Self tapping screws or pop rivets (to secure loom clips)
- Wire ties
- Automatic transmissinon fluid (multi purpose or Dexron) (aprox 12 qts) to fill the resivoir and system

Note: It is important to read fully the instructions prior to attempting installation or operation.

There are multiple options available for the dual leg systems. It will be necessary for installation and operation that the type of pump assembly be known. There are two pump types (UNI or BI Rot) and there are 3 methods for pumping/operating the jacks. There also are multiple mount options, including a universal type. Page 2 is to help identify the type of pump assembly so that the proper sections in the manual may be identified.

PUMP IDENTIFICATION

Uni-Rotational Pumps
The unit will have a tag on either the motor or the port plate. The tag will include one of the following numbers: 2142 (MTE # S101T*4996), 3126 (MTE # S103T*5476), 3126S (MTE # S103T*5476S), 3170 (MTE S103T*5544).

The unit will have one motor solenoid attached to the motor with a worm clamp.

The motor will have one power terminal exiting the case. A cable connects the motor to the solenoid.

A directional valve with a knurled red knob is located in the pump plate near the motor solenoid. This valve controls extension and retraction of the jacks.

Bi-Rotational Pumps #s 2532 & 2542
The unit will have a tag on either the motor or the port plate. The tag will include the EQ part number 2532 (MTE # S103T*5075) or 2542 (MTE # S103T*5076)

The unit will have two motor solenoids attached to the motor with a worm clamp. One is for extension and one is for retraction.

The motor will have two power terminals exiting the side of the motor case.

Bi Rotational Pump # 3043
The unit will have a tag on either the motor or the port plate. The tag will include the EQ part number 3043 (MTE # S103T*5334).

This unit will have a single motor solenoid (contactor) that determines motor rotation direction. The motor will have two terminals exiting the end plate of the motor.

JACKS

Your jacks may have been provided with a mounting flange or bracket (depending on the mounting option ordered for your system). There are different mounting options for different manufactures of trailers plus a “Universal type mount”. When bolting the jacks to the trailer we recommend using grade 8 bolts of the proper size to “fill” the holes. Welding the jacks in place requires sound welding practices. If unsure of specific mounting requirement check with EQ or your trailer manufacture. The jack should be mounted adequately to lift the trailer and the tow vehicle as the coupler could “stick”. The jacks should be mounted so that when the trailer is level (while mounted to the tow vehicle) there is a minimum of 10 inches of ground clearance. This is usually achieved by mounting the jack so that the foot is slightly below the bottom edge of the trailer. The bottom of the footpad should not be lower than any other item on the trailer.

PUMP MOUNTING

The base of the pump is drilled and tapped 3/8-16 to be used for mounting. Most are shipped with mounting fasteners for this purpose. Pumps may be mounted vertical or horizontal. They must be mounted so that the fill or breather cap is “UP” and in a position where it can be filled. There are 2 locations where the fill (breather cap) may be located depending on the mounting selected. When mounting vertically the motor must be “UP” or above the reservoir. If mounting horizontal the mounting holes/surface must face down. The pump assembly should be mounted in a manner that allows access for maintenance and to be able to perform “manual override” in the event that it is needed. See the section(s) on manual override for info on this. Also on units that have the selector valves, the valves will need to be accessible for the customer to operate. The pump assembly should be mounted in a box or compartment or a cover should be used to protect the unit from direct road spray. One favored mounting location is on the front of a jack, many of the leg assemblies have a bracket for this purpose.

SWITCH AND HARNESS

The switch box is made with a mounting plate with 4 holes (one in each corner) for mounting purposes. It may be mounted using screws or rivets. The type of screw or rivet is dependent on the type of surface that the switch box is to be mounted. The screw head should be of a type that properly mates with the plastic surface. When selecting a mounting area be aware of the length and the routing of the harness and a location that is convenient for the user. The harness should be routed in a manner that protects it from chaffing and high heat sources. The switch and harness are considered to be weather resistant. A mounting locating that keeps it out of direct road or tire spray should be considered to help prevent issues.

FLUID

Automatic transmission fluid (ATF) that meets a Dexron specification (such as multipurpose) is the recommended fluid for use in all EQ Systems hydraulic pumps. Using ATF Dexron provides good operation for most climates that the systems will be used in. The use of a Synthetic ATF Fluid may be used if the system needs to be used in extreme cold conditions (-20 F or below). Fluids heavier than ATF such as ISO 32 or 46 hydraulic oils are not recommended as poor or no operation could occur in cold climates.

INSTALLATION FOR UNI-ROTATIONAL PUMP

3170, 3126,3126s, 2142

UNI-ROTATIONAL PUMP HYDRAULIC HOSE CONNECTIONS

Independent Control See drawing # P7175G

These units have two rocker switches on the switch box. One for each jack leg. The manifold block with two valves and two hose connections is mounted to the pump center section.

Hose Connections Top Port: These ports are located on the manifold block that holds the cartridge valves for either the left or right jack. The brown solid sticker is for the top port on the left jack. The white solid sticker is for the top port on the right jack.

Hose Connections Bottom Port: A tee fitting exits the pump center section between the motor and the reservoir. This is the retract port and must be connected to the bottom fitting of each jack. It does not matter which one is the left or right jack.

Selector Valve Control See drawing # P7073

These units have a single rocker switch on the switch box. The selector valve has two manual twist style valves with knobs. One is for the left jack and the other is for the right jack.

Hose Connections Top Port: On the selector valve there are two fittings. These are connected to the top of the jack legs. One to the left jack and one to the right jack.

Hose Connections Bottom Port: A tee fitting exits the pump center plate between the motor and the reservoir. This is the retract port and must be connected to the bottom fitting of each jack. It does not matter which one is the left or right jack.

TEED

On these units the jacks are hydraulically teed together. They are controlled by a single switch on the switch box.

Hose Connections Top Port: A tee fitting exiting the pump center section near the motor. One hose goes to the left jack and the other to the right jack.

Hose Connections Bottom Port: A tee fitting exiting the pump center plate near the reservoir. One hose goes to the left jack and the other to the right jack.

Uni-Rotational Pump Power Connections See drawing # P7175G & P7073

Pump Ground (-12 volts DC): A 5/16" stud is provided at the port plate (next to the directional valve) to attach a wire (minimum #4 gauge) to the negative (-12v) of the battery. It is not acceptable to use the frame of the vehicle or trailer as the sole grounding connection.

Pump Positive (+12 volts DC): A wire (minimum #4 gauge) must be connected from the battery terminal on the motor solenoid to the positive (+12v) of the battery. This terminal will also have a 14 gauge red wire feeding a red fuse holder. If circuit protection is required, a circuit breaker with a minimum rating of 120 amps is required at the battery.

Switch & Harness Connection: The 6-way (white in color) connector on the pump assembly mates with the connector on the end of the switch and harness assembly. The use of corrosion preventative spray may be used on electrical terminals to help prevent corrosion.

Uni-Rotational Pump Hydraulic Fluid Purging

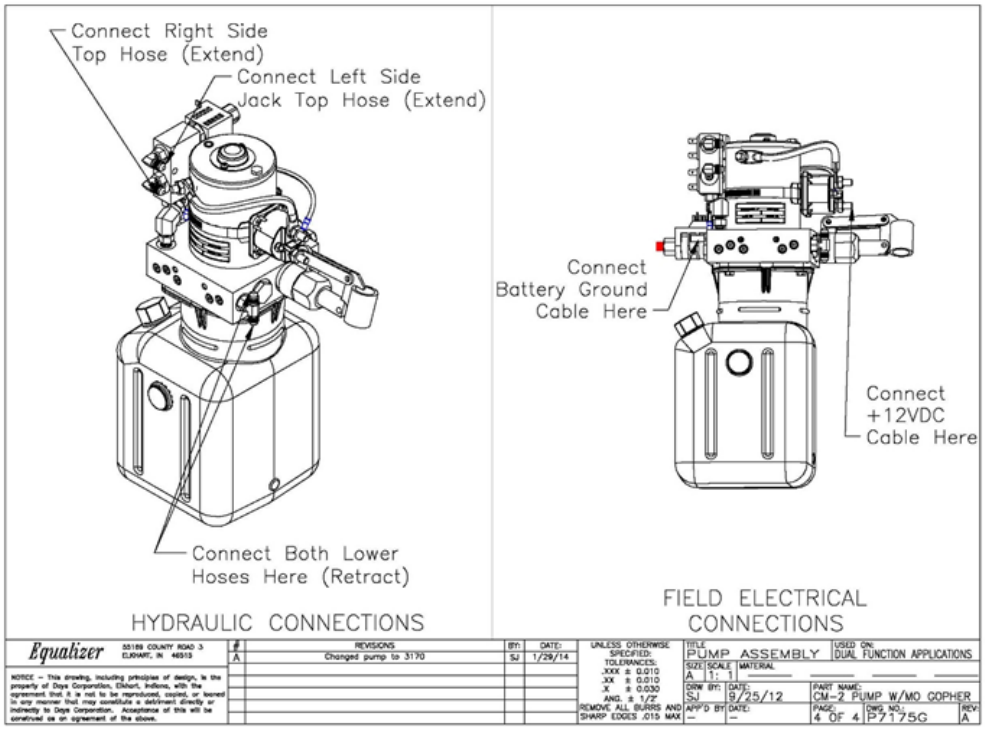
(Only applies to AM-2 Systems that are equipped with hand pump for override)

This procedure should be performed with the initial installation and running of hydraulic system following installation of the pump assembly and jacks. All electrical and hose connections must be completed before the purging process.

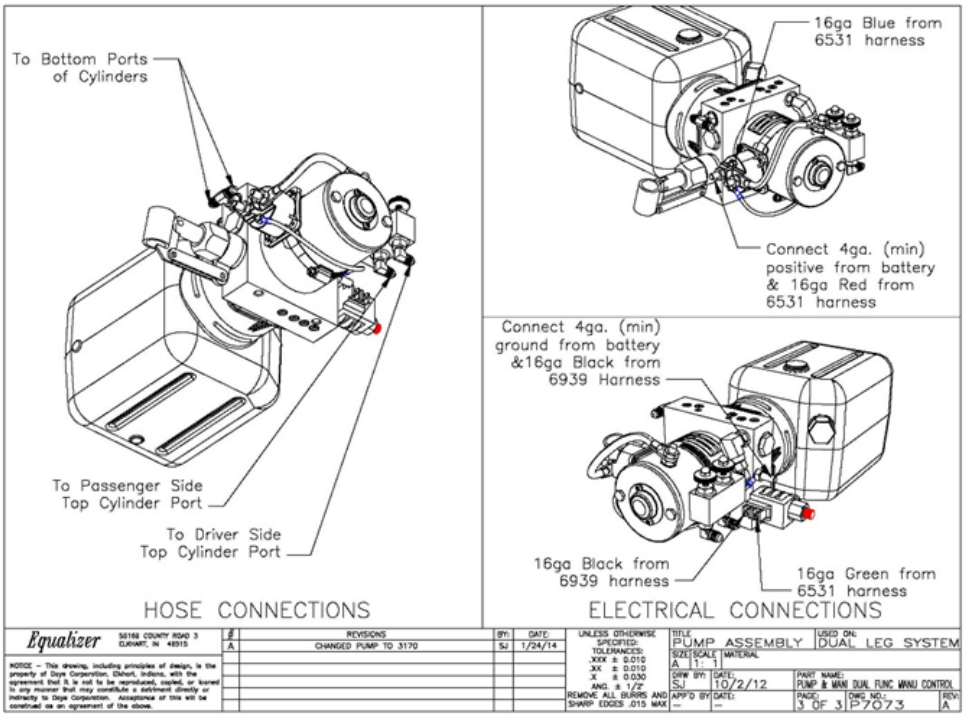
Fill the reservoir with ATF (Dexron). Run the pump to extend the jacks. Maintain the fluid level in the reservoir approximately ½ full. Do not allow reservoir to run empty. If jack(s) will not fully extend, crack loose the upper hose(s) at the jack(s) and run pump extend until air is expelled. Retighten the hoses and complete the extension of the jack(s). Maintain the fluid level.
Run the pump to retract the jacks. Maintain the fluid level as above. Do not fill to full until after the legs are fully retracted. If fluid in reservoir appears to be aerated (foaming), allow unit to sit until foam dissipates- Approximately 5-10 minutes. Fully extend and retract jacks a minimum of three times. Allow foamed oil to dissipate as needed. Maintain the fluid level in the reservoir as needed.

Additional Notes for Purging of Uni-Rotational Pump

The reservoir fluid level will be greatest when the jacks are fully retracted and lowest when jacks are fully extended. Never allow the reservoir to go empty. Maintain the fluid level at least ¼ full all the time. This ¼ line should be clear fluid not foamed up. The fuller the reservoir is the better just remember that the level will rise as the jacks are retracted. If it is too full when the jacks are extended, the reservoir will overflow out of the breather cap when the jacks are retracted.
Be patient. It does no good to run the pump and try to move the jacks when the reservoir is full of foam. Pumping foam will only reintroduce air into the system. You want the air out. Allowing the air to dissipate through the reservoir and maintaining the reservoir fluid level will get things working faster.



Drawing # P7175G Showing Pump # 3170 with independent control



Drawing # P7073 Showing Pump # 3170 with selector valve control

INSTALLATION FOR UNI-ROTATIONAL PUMP

 # 2532, 2542, 3043

BI-ROTATIONAL PUMP HYDRAULIC HOSE CONNECTIONS

Independent Control

These units have two rocker switches on the switch box. One for each jack leg. The manifold block with two valves and two hose connections is mounted to the pump center section.

Hose Connections Top Port: These ports are located on the manifold block that holds the cartridge valves for either the left or right jack. The brown solid sticker is for the top port on the left jack. The white solid sticker is for the top port on the right jack. The pump center section will be stamped with a “T” on the surface near the reservoir.

Hose Connections Bottom Port: A tee fitting exits the side of the pump center plate between the motor and the reservoir. The pump center section will be stamped with a “B” on the surface near the reservoir. This is the retract port and must be connected to the bottom fitting of each jack. It does not matter which connection on the Tee fitting is the left or right jack.

Selector Valve Control

These units have a single rocker switch on the switch box. The selector valve has two manual twist style valves with knobs. One is for the left jack and the other is for the right jack.

Hose Connections Top Port: On the selector valve there are two fittings. These are connected to the top of the jack legs. One to the left jack and one to the right jack. The pump center section will be stamped with a “T” on the surface near the reservoir.

Hose Connections Bottom Port: A tee fitting exits the side of the pump center plate between the motor and the reservoir. The pump center section will be stamped with a “B” on the surface near the reservoir. This is the retract port and must be connected to the bottom fitting of each jack. It does not matter which connection on the Tee fitting is the left or right jack.

TEED

On these units the jacks are hydraulically teed together. They are controlled by a single switch on the switch box.

Hose Connections Top Port: A tee fitting exits the side of the pump center plate between the motor and the reservoir. The pump center section will be stamped with a “T” on the surface near the reservoir. This is the extend port and must be connected to the top fitting of each jack. It does not matter which connection on the Tee fitting is the left or right jack.

Hose Connections Bottom Port: (see purge instr. below) A tee fitting exits the side of the pump center plate between the motor and the reservoir. The pump center section will be stamped with a “B” on the surface near the reservoir. This is the retract port and must be connected to the bottom fitting of each jack. It does not matter which connection on the Tee fitting is the left or right jack.

BI-ROTATIONAL PUMP POWER CONNECTIONS

Pumps # 2532 & 2542

Pump Ground (-12 volts DC): A 5/16” stud is provided at the port plate to attach a wire (minimum #4 gauge) to the negative post of the battery. It is not acceptable to use the frame of the vehicle (or trailer) as the sole grounding connection.

Pump Positive (+12 volts DC): A wire (minimum #4 gauge) must be connected from the battery terminal on the motor solenoid to the positive (+12v) of the battery. This terminal will also have a 14 gauge red wire (feeding a red fuse holder) and a heavy cable feeding the other solenoid. If circuit protection is required, a circuit breaker with a minimum rating of 120 amps is required at the battery.

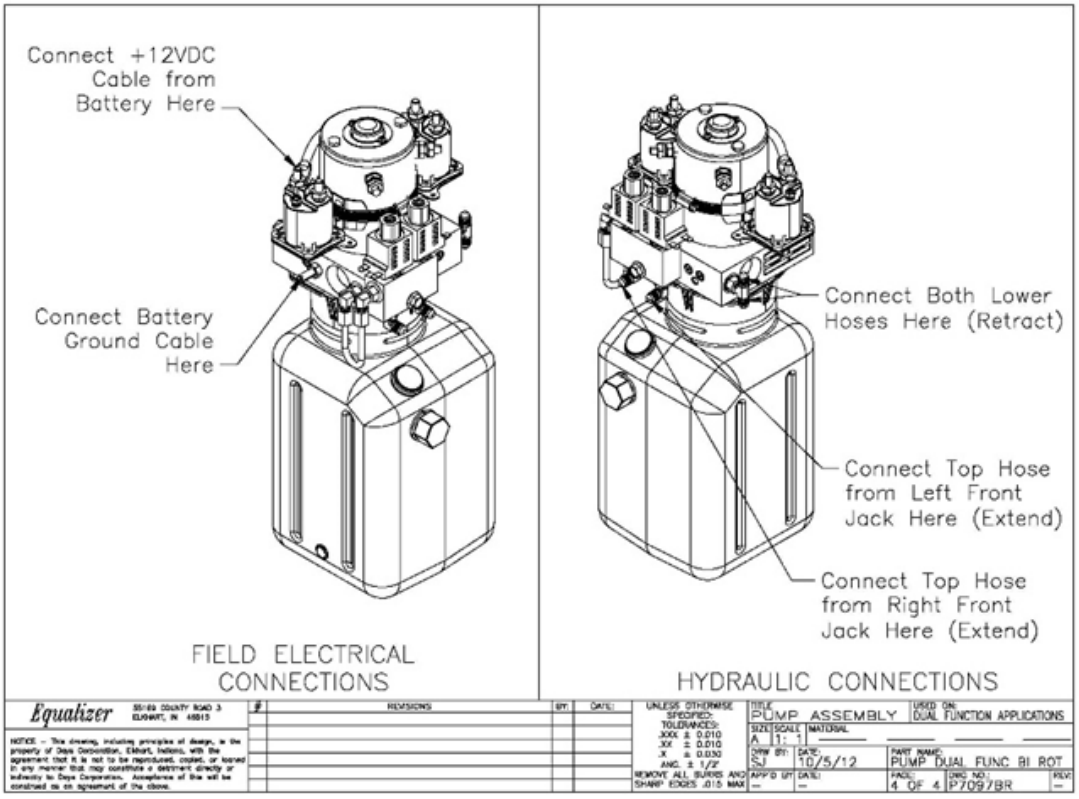
Switch & Harness Connection: A 6-way connector (white in color) is provided on the pump assembly and mates with the connector at the end of the switch and harness assembly.
The use of corrosion preventative spray may be used on electrical terminals to help prevent corrosion.

Pump # 3043

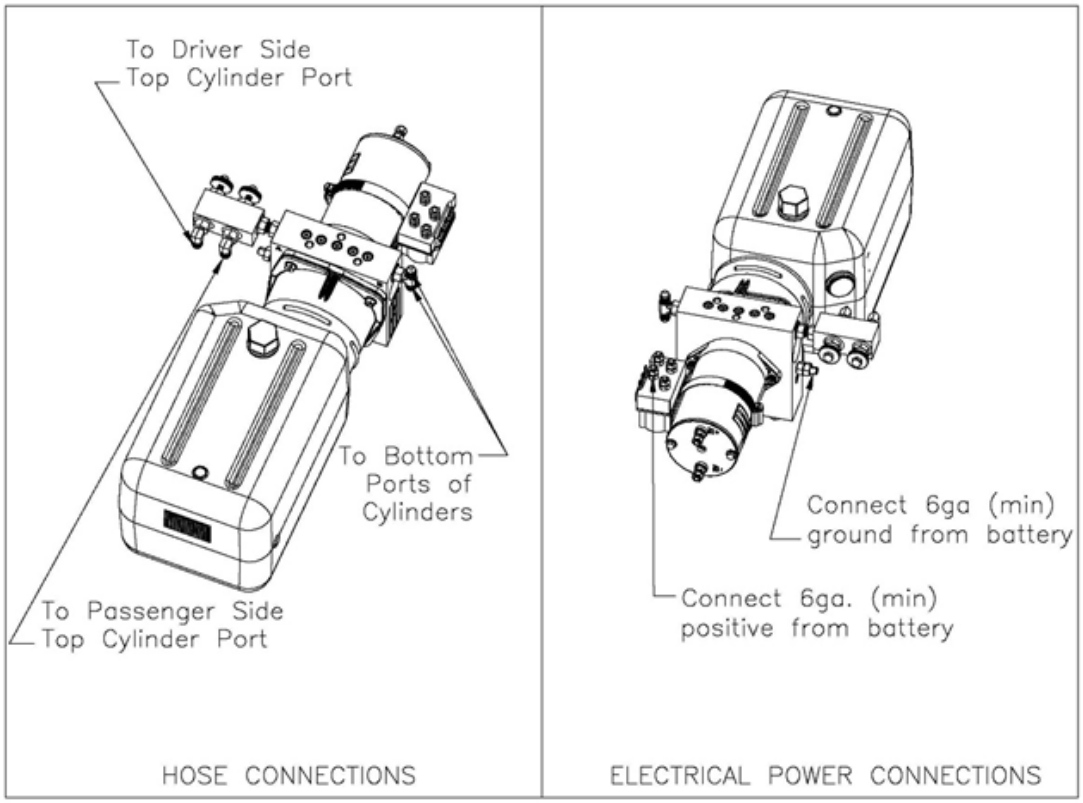
Pump Ground (-12 volts DC): A 5/16” stud is provided at the port plate to attach a wire (minimum # 6 gauge) to the negative post of the battery. It is not acceptable to use the frame of the vehicle (or trailer) as the sole grounding connection.

Pump Positive (+12 volts DC): A wire (minimum #6 gauge) must be connected from the battery terminal on the motor solenoid to the positive (+12v) of the battery. This terminal will also have a 14 gauge red wire feeding a red fuse holder. If circuit protection is required, a circuit breaker with a minimum rating of 80 amps is required at the battery.

Switch & Harness Connection: A 6-way connector (white in color) is provided on the pump assembly and mates with the connector at the end of the switch and harness assembly.
The use of corrosion preventative spray may be used on electrical terminals to help prevent corrosion.



Drawing # P7097BR **Showing Pump # 2532 with independent control**



Drawing # P7543 **Showing pump # 3043 with selector valve**

BI-ROTATIONAL PUMP HYDRAULIC HOSE CONNECTIONS

(Applies ONLY to AM-2 systems that are equipped with Bi-Rotational pumps)

This process works best if the jacks can be fully extended without lifting the trailer. This procedure should be performed with the initial installation and running of hydraulic system following installation of the pump assembly and jacks.
All electrical and hose routing and connections must be completed before the purging process.
Fill reservoir with ATF (Dexron).
Remove the bottom hoses from the tee fitting at the pump (B port). Place hoses into a clean container. These are the bottom (or retract) hose assemblies. Cap the connection at the tee fitting to prevent air intrusion.

Run the pump to extend the jacks. Maintain the fluid level in the reservoir approximately ½ full. Do not allow the reservoir to run empty. If jacks will not fully extend, crack loose the upper hoses at the jacks and run pump to extend until air is expelled. Retighten the hoses and complete the extension of the jacks. Maintain the fluid level as described above. Reconnect the hoses to the tee fitting at the pump.

Run the pump to retract the jacks. Maintain the fluid level as above. Do not fill to full until after the legs are fully retracted. If fluid in reservoir appears to be aerated (foaming), allow unit to sit until foam dissipates (approximately 5-10 minutes).

Fully extend and retract jack legs a minimum of three times. Allow foamed oil to dissipate as needed. Maintain the fluid level in the reservoir as needed.

Additional Notes Regarding Purging

The reservoir fluid level will be greatest when the jacks are fully retracted and lowest when the jacks are fully extended. Never allow the reservoir to go empty. Maintain the fluid level at least ¼ full all the time. The ¼ line should be clear fluid, not foamed up. The fuller the reservoir is the better. Remember that the level will rise as the jacks are retracted. If it is too full when the jacks are extended, then the reservoir will overflow out of the breather cap when the jacks are retracted. Be patient. It does no good to run the pump and try to move the jacks when the reservoir is full of foam. Pumping foam will only reintroduce air into the system.

You want the air out. Allowing the air to dissipate through the reservoir and maintaining the reservoir fluid level will get things working faster.

OPERATION OF DUAL LEG JACKS

Normal operation of dual leg jacks is the same regardless of which pump type (UNI or Bi-Rot) is part of the system. The operation of these does vary however, depending on if the system is independent control, selector valve, or teed.

Independent Control: The easiest way to identify this type system is that the switch control box will have 2 rocker switches- one for each jack. To operate these simply insert the key into the key switch, turn it to the on position, and then use the rocker switches to extend or retract the jacks. The jacks can be run independently (one at a time) by pressing one or the other switch or together by pressing both switches at the same time. When running them at the same time they both must operate in the same direction. They can be used one at a time to “level” side to side. They will stay in place individually as they have separate individual extend “hold” valves.

Selector Valve: These systems have one rocker switch in the switch box and a turn-style valve manifold at the pump. There are 2 selector valves (one for each jack) in the manifold. To operate insert and turn the key (if equipped with a keyed disconnect) then use the rocker switch to extend or retract the jacks. The selector valve(s) must be in the open (counterclockwise) for the jacks to operate. The selector valves may be part way opened or closed to meter (control) the jacks speed and extension independently. To assure that the jacks remain extended individually in place the selector valves need to be turned to the closed (clockwise) position.

TEED: These systems have one rocker switch in the switch box. There is no independent control of the jacks. To operate insert and turn the key (if equipped with a keyed disconnect) then use the rocker switch to extend or retract the jacks. Both jacks will extend or retract depending on which way the switch is operated. The jacks may not operate at the same speed and one may reach the ground first and start to lift the trailer. Generally if this is the case, it will slow down or stop and the other will catch up. If there is a large difference in load (weight) between the jacks, then the lighter side will lift faster and higher.

MANUAL OVERRIDE

EQ Systems dual leg systems are designed with an override feature to help operate the jacks in the event of an electrical or power failure. For this feature to be effective the hydraulic system must be sound (free of excessive leaks) and there must be oil in the reservoir. The manual override procedure is different depending on what pump your system is equipped with (Uni or Bi-Rot) as well as the system type (independent control, selector valve, or Teed). It is important to know which type of pump and system that is on the unit.

MANUAL OVERRIDE UNI-ROTATIONAL PUMPS

Pumps # 3170, 3126, 3126s, 2142

Independent Control See drawing # MO-1

Units with hand pump

1. Locate the two cartridge valves. Recessed into the end of the cartridge valve is a 1/8 inch Allen hex that needs to be turned in (clockwise) until it stops (about 2-2 ½ turns).
2. To extend the jacks locate the hand pump and insert the handle. Operate the handle back and forth. The jack(s) should extend slightly with each stroke (it may take a few strokes for it to get started).
3. To retract the jacks locate the red knob on the end of the directional control valve. Pull out on the red knob and turn it ¼ turn so that it stays in the out position. Do not use pliers on this knob- use only fingers. Insert the handle into the hand pump and operate the hand pump back and forth. The jack(s) should retract slightly with each stroke (it may take a few strokes for it to get started).
4. After override is complete return the cartridge valves (item 1) back to the original out (counter clockwise) position. Return the red knob at the directional valve to the in position by turning it so that it finds it's "spring in" position.

Units without hand pump (this process also works on units with the hand pump)

1. Locate the two cartridge valves. Recessed into the end of the cartridge valve is a 1/8 inch Allen hex that needs to be turned in (clockwise) until it stops (about 2-2 ½ turns).
2. Locate the 7/16 hex under the plastic cover on the end of the motor. Use a drill (at least 2000 RPM) and a 7/16 hex driver on the end of the motor run the drill clockwise the jack(s) should extend.
3. To retract the jacks locate the red knob on the end of the directional control valve. Pull out on the red knob and turn it ¼ turn so that it stays in the out position. Do not use pliers on this knob use only fingers. Locate the 7/16 hex under the plastic cover on the end of the motor. Use a drill (at least 2000 RPM) and a 7/16 hex driver on the end of the motor run the drill clockwise the jack(s) should retract.
4. After override is complete return the cartridge valves (item 1) back to the original out (counter clockwise) position. Return the red knob at the directional valve to the in position by turning it so that it finds it's "spring in" position.

MANUAL OVERRIDE UNI-ROTATIONAL PUMPS

Pumps # 3170, 3126, 3126s, 2142

Independent Control See drawing # MO-1

Units with hand pump

1. Locate the two cartridge valves. Recessed into the end of the cartridge valve is a 1/8 inch Allen hex that needs to be turned in (clockwise) until it stops (about 2-2 ½ turns).
2. To extend the jacks locate the hand pump and insert the handle. Operate the handle back and forth. The jack(s) should extend slightly with each stroke (it may take a few strokes for it to get started).
3. To retract the jacks locate the red knob on the end of the directional control valve. Pull out on the red knob and turn it ¼ turn so that it stays in the out position. Do not use pliers on this knob- use only fingers. Insert the handle into the hand pump and operate the hand pump back and forth. The jack(s) should retract slightly with each stroke (it may take a few strokes for it to get started).
4. After override is complete return the cartridge valves (item 1) back to the original out (counter clockwise) position. Return the red knob at the directional valve to the in position by turning it so that it finds it's "spring in" position.

Units without hand pump (this process also works on units with the hand pump)

1. Locate the two cartridge valves. Recessed into the end of the cartridge valve is a 1/8 inch Allen hex that needs to be turned in (clockwise) until it stops (about 2-2 ½ turns).
2. Locate the 7/16 hex under the plastic cover on the end of the motor. Use a drill (at least 2000 RPM) and a 7/16 hex driver on the end of the motor run the drill clockwise the jack(s) should extend.
3. To retract the jacks locate the red knob on the end of the directional control valve. Pull out on the red knob and turn it ¼ turn so that it stays in the out position. Do not use pliers on this knob use only fingers. Locate the 7/16 hex under the plastic cover on the end of the motor. Use a drill (at least 2000 RPM) and a 7/16 hex driver on the end of the motor run the drill clockwise the jack(s) should retract.
4. After override is complete return the cartridge valves (item 1) back to the original out (counter clockwise) position. Return the red knob at the directional valve to the in position by turning it so that it finds it's "spring in" position.

MANUAL OVERRIDE UNI-ROTATIONAL PUMPS CONT.

Units with Selector Valve See Drawing MO-2

Units with hand pump

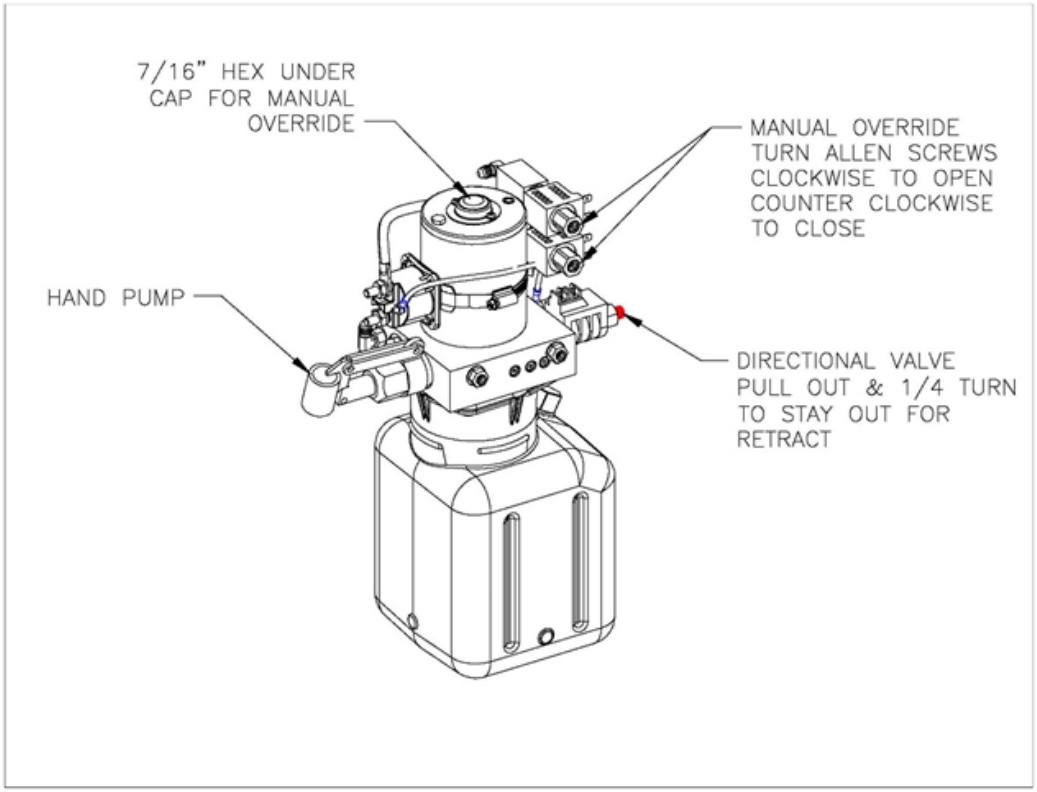
1. Locate the two selector valves. Open the valves completely by turning them out until they stop.
2. To extend the jacks locate the hand pump and insert the handle. Operate the handle back and forth. The jack(s) should extend slightly with each stroke (it may take a few strokes for it to get started).
3. To retract the jacks locate the red knob on the end of the directional control valve. Pull out on the red knob and turn it ¼ turn so that it stays in the out position. Do not use pliers on this knob use only fingers. Insert the handle into the hand pump and operate the hand pump back and forth. The jack(s) should retract slightly with each stroke (it may take a few strokes for it to get started).
4. After override is complete return the red knob at the directional valve to the in position by turning it so that it finds it's "spring in" position.

Units without hand pump (this process also works on units with the hand pump)

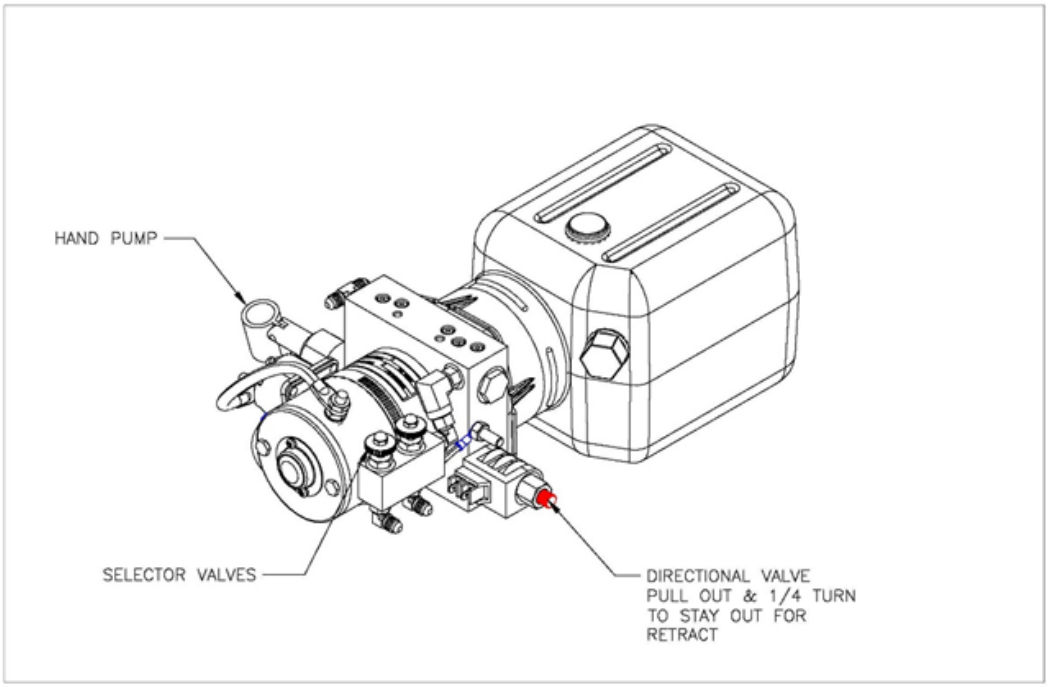
1. Locate the two selector valves. Open the valves completely by turning them out until they stop.
2. Locate the 7/16 hex under the plastic cover on the end of the motor. Use a drill (at least 2000 RPM) and a 7/16 hex driver on the end of the motor -run the drill clockwise. The jack(s) should extend.
3. To retract the jacks locate the red knob on the end of the directional control valve. Pull out on the red knob and turn it ¼ turn so that it stays in the out position. Do not use pliers on this knob use only fingers. Locate the 7/16 hex under the plastic cover on the end of the motor. Use a drill (at least 2000 RPM) and a 7/16 hex driver on the end of the motor- run the drill clockwise. The jack(s) should retract.
4. After override is complete return the red knob at the directional valve to the in position by turning it so that it finds it's "spring in" position.

TEED

These units have no independent or selector valves to open. Simply follow the instructions 2 thru 4 directly above.



Drawing # MO-1 **Showing Pump # 3071 with independent control**



Drawing # MO-2 **Showing Pump # 3071 with Selector Valve**

MANUAL OVERRIDE BI-ROTATIONAL PUMPS

Pumps # 2532 & 2542

Independent Control See drawing # MO-3

1. Locate the two cartridge valves. Recessed into the end of the cartridge valve is a 1/8 inch Allen hex that needs to be turned in (clockwise) until it stops (about 2-2 ½ turns).
2. To extend locate the 7/16 hex under the plastic cover on the end of the motor. Use a drill (at least 2000 RPM) and a 7/16 hex driver on the end of the motor run the drill clockwise. The jack(s) should extend.
3. To retract locate the 7/16 hex under the plastic cover on the end of the motor. Use a drill (at least 2000 RPM) and a 7/16 hex driver on the end of the motor- run the drill counterclockwise. The jack(s) should retract.
4. After override is complete return the cartridge valves (item 1) back to the original out (counter clockwise position).

Units with Selector Valve See drawing # MO-4

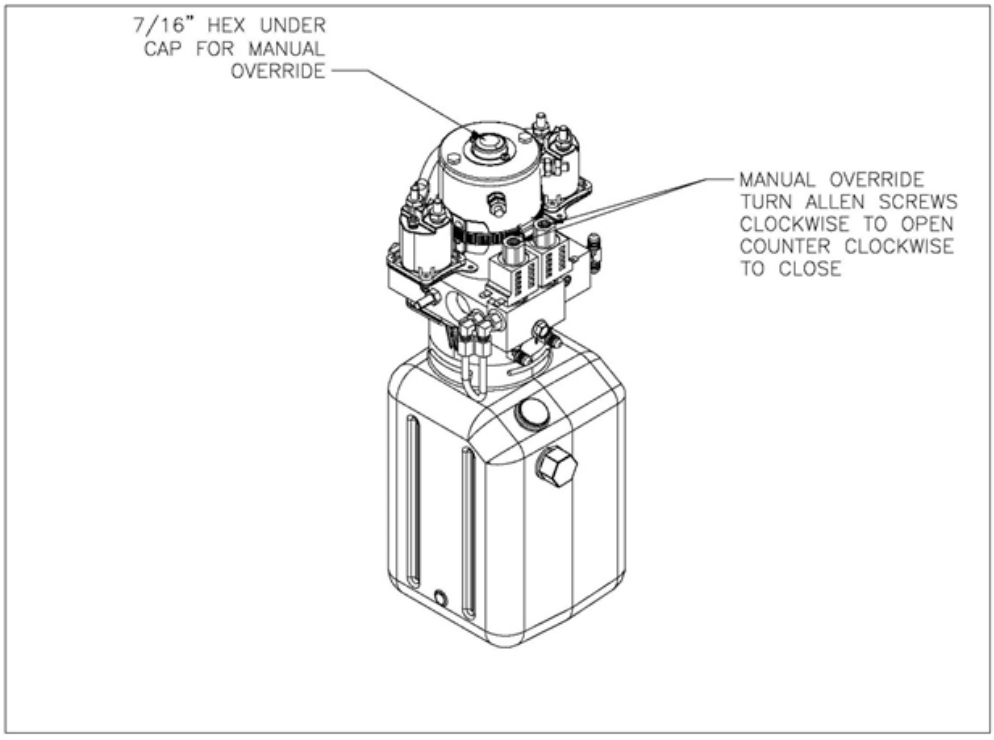
1. Locate the two selector valves. Open the valves completely by turning them out until they stop.
2. To extend locate the 7/16 hex under the plastic cover on the end of the motor. Use a drill (at least 2000 .RPM) and a 7/16 hex driver on the end of the motor- run the drill clockwise. The jack(s) should extend.
3. To retract locate the 7/16 hex under the plastic cover on the end of the motor. Use a drill (at least 2000 RPM) and a 7/16 hex driver on the end of the motor- run the drill counterclockwise. The jack(s) should retract.

TEED

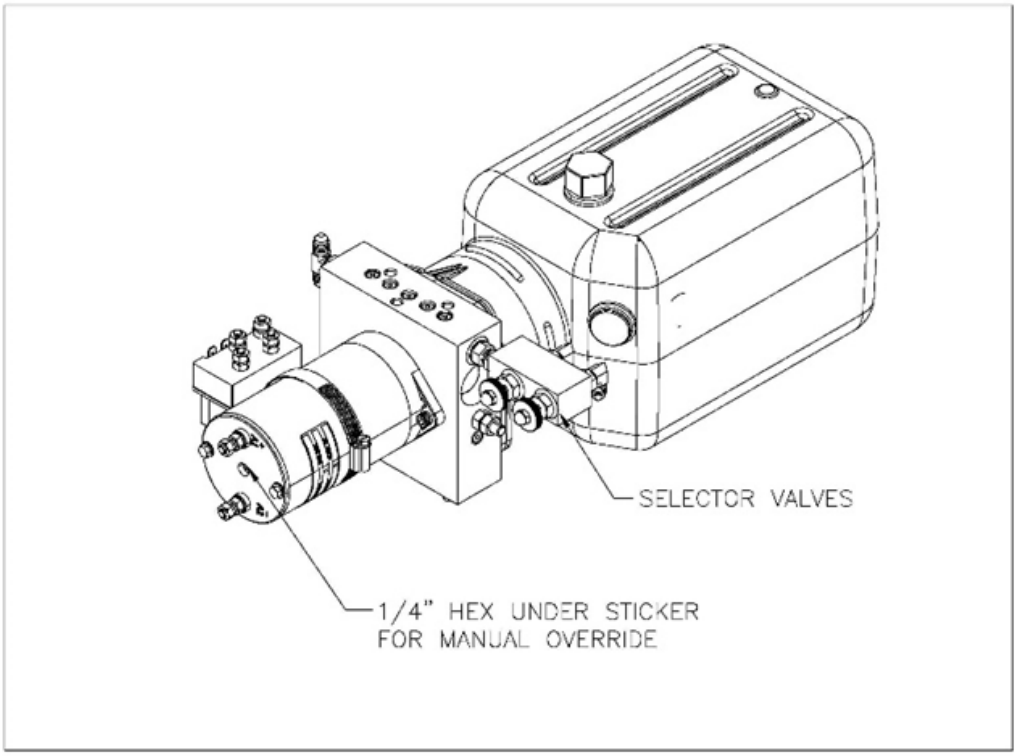
These units have no independent or selector valves to open. Simply follow the instructions 2 & 3 directly above.

Bi-Rotational Pump # 3043

The override for this unit is the same as for pumps 2532, 2542 (above), except that the override hex for the drill is a ¼ inch hex drive (Allen)



Drawing # MO-3 **Showing pump # 2532 and 2542 with independent control**



Drawing # MO-4 **Showing pump # 3043 with Selector Valve**

HINTS / FAQ AND PROBLEM SOLVING FOR SINGLE AND DUAL LEG TRAILER JACKS

The jack(s) run for a few seconds then stop(s)
Generally this is caused by a weak or defective battery. Charge the battery and retry. It may be necessary to have the battery tested and/or replaced.

The jack(s) only extend regardless of which way I push the switch
Generally this is caused by a weak battery or poor connections. On units that have the uni-rotational pump, the directional valve must receive at least 10.5 VDC for it to properly shift. Charge the battery, check the connections for connectivity or corrosion and retry.

I push the switch and nothing happens
Check the wiring connections at the battery and the pump assembly for looseness or corrosion. Check the disconnect switch or the key switch to assure (If equipped) that it is in the “ON” position. Check for a tripped circuit breaker. Some units have a fuse holder at the wiring near the pump. If so, check the fuse. Verify that the battery is not dead

Most of the time its works fine, sometimes not at all, and then later it works again or sometimes it just clicks
Most no-run, intermittent operation, or operation in one direction only is due to a dead or weak battery. Or possibly a battery that is not being properly charged by the charging system and/or loose or corroded electrical connections. Check out the vehicle electrical system to include the battery and the charging system for possible issues.

Why do I need a ground? Isn’t my jack bolted to the trailer?
Do not ignore the ground. EQ recommends that a 4 gauge wire cable be run from the battery negative terminal to the body of the jack to assure a good connection. Failure to do so invites a poor ground connection due to painted surfaces or corrosion build up between the jack and the trailer. This is especially important if the mounting is relied upon for grounding on aluminum trailers, as corrosion will build up between the jack and the trailer. Also most battery-to-trailer grounds are of smaller than needed wire gauge size as they were designed to operate lighting or other low current draw devices. The jack is a high current draw item requiring a “heavy” gauge ground.

What happens if I lose my keys? You may be able to buy new keys from EQ Systems if you know the key code. If you do not know the key code you will need to replace the key switch assembly. In an emergency you will need to perform the manual override procedure outlined in your owner’s manual.
Hints / FAQ and Problem Solving for Single and dual leg trailer Jacks (Continued)

My trailer lowered overnight. Why did the jack(s) do this?
There are three basic reasons for this. First look for any signs of external fluid loss (leakage). Generally if there is a leak it will be due to a loose fitting or adaptor. If no external fluid leaks are present, the issue is with the hydraulic cylinder seal or with the hold-check (valve) in the pump. You will need to record the numbers from the pump assembly and call EQ Systems to get these items addressed.

When retracting my jack(s) it bounces or jerks– Why?
The first possibility is that there is air in the system. Check the fluid level in the reservoir. Add fluid if needed. Then cycle the jack to full extension and then full retraction 3 times to purge the air out. If the fluid is foamy between cycles allow it to sit until the foam dissipates. On systems that are at or over the maximum lifting capacity, a very slight “pulse” may be normal during retraction. For excessive “pulsing” (bouncing) call EQ Systems as there may be an issue with the flow control or pump check valve.

My dual legs jacks operate at different speeds –Why?
The fluid from the pump will flow faster to the leg where there is the least resistance. If equipped with the selector valves, adjust them so that the jack speed is the same. Generally when running the jacks to take up ground clearance there may be some difference and then when the fast one hits the ground, the slower one will speed up and catch up to the other jack.

My jack won’t work. How do I manually override?
The manual override procedure is different depending on the type of pump assembly and control that is on your specific system. You will need to know which type you have. See the manual override section of the owner’s manual for this.

I need parts. How do I find and where do I go?
You will need the number from the pump assembly and perhaps some measurements of the jack leg(s). You can go to the replacement parts section of our online store **www.eqsystems.us** to order or you can call us at **800-846-9659**. You can also contact your dealer for assistance.