EQ SYSTEMS®

AJ SINGLE LEG

Installation/Operation/Warranty Guide

Effective October 2010

EQ004R9

(800) 846-9659
EQSystems.us

AJ SERIES

Single Leg Hydraulic Jack: 8,000 lb.Capacity

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

- # 6 gauge power wire (to connect battery +12V to the pump)
- # 6 gauge ground wire (to connect battery – 12V ground to pump)
- # 6 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

JACK MOUNTING

The AJ style jack is available in “bolt on” or “weld on” configurations (depending on the mounting option ordered for the system). Mounting provisions must be designed with adequate strength to sustain trailer weight and jack lifting capacity. If bolting the jack in place, ensure the use of appropriate size and quantity of mounting hardware. The use of Grade 8 bolts is recommended. Welding the jack in place requires sound welding practices.

The jack 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 trailer. The bottom of the foot pad should not be lower than any other item mounted on the trailer.

SWITCH HARNESS AND HYDRAULIC LINES

The AJ jack has been shipped with all necessary switchgear, harnesses and hydraulic lines. These items are specifically engineered to operate your system and should not be altered in any manner. Modification of any factory-supplied item may result in the denial of all warranty claims.

SWITCHGEAR

The unit may have been provided with a key switch in the switchgear box (depending on the option ordered). If unit is not supplied with a key switch, the +12v battery lead must be fed through a power disconnect switch to fully isolate the system during travel or inactivity. Minimum switch rating must be 80 ampere DC. Switchgear is plugged into the system harness through a weather resistant connector (shown in Fig.1)

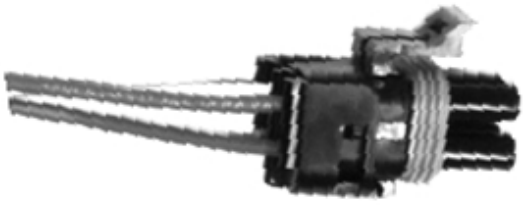


Fig.1- Weather Resistant Connector

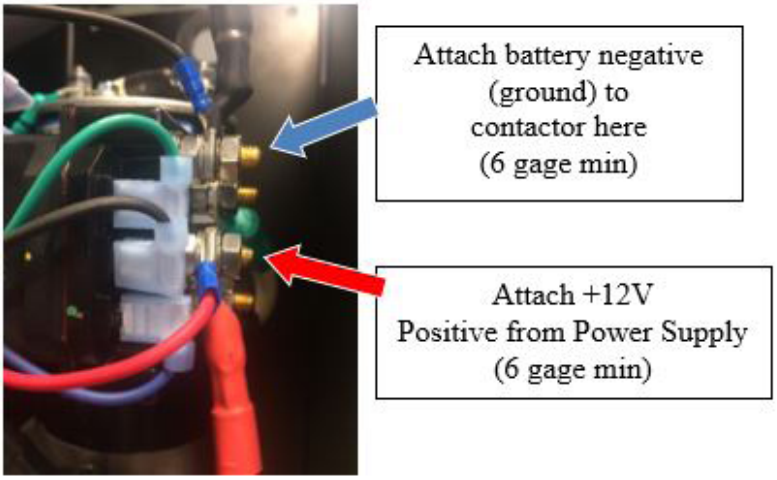
BATTERY CONNECTIONS

Battery Lead (+12volts): Attach a # 6-gauge (minimum) wire between the positive +12 volt terminal on the battery and the plus (+) terminal on the motor contactor; shown in Fig 2. There is a small red wire on this terminal.
If circuit protection is required, install an 80 amp (minimum) circuit breaker.

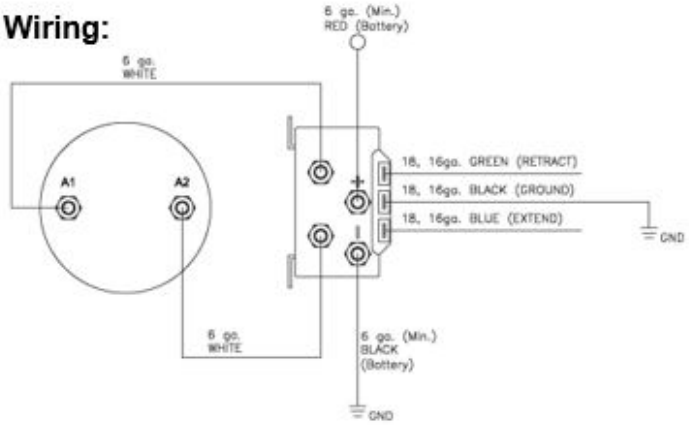
Pump Ground (-12volts): Attach a #6 gauge (minimum) wire between the negative -12 volt terminal on the battery and the negative terminal on the contactor.
It is not acceptable to allow the weld to be the sole grounding connection.

Note: Do not make any connections to the motor terminals.

Fig. 2



Reversing Contactor Wiring:



RESERVOIR BREATHER CAP

With the jack installed in the vertical position, remove the round flush mounted fill plug from the top of the reservoir and discard. Replace with the 6-sided breather cap. Failure to do so will cause the jack to operate erratically. Make sure the reservoir has adequate fluid.

Fluid Level: When the jack is fully retracted, the fluid level in the reservoir should be approximately one inch below the fill cap. If fluid needs to be added, use Dexron III automatic transmission fluid (the same as used for a GM automobile).

OPERATION

To raise and lower the jack, simply push and hold the rocker switch in the up or down position. The jack will hold a position by releasing the switch at any time. There is no need to take the weight off the jack when storing the trailer, as the positive check valves in the system will not allow the jack to bleed down.

Warning: With any hydraulic application, holding any position on a cylinder must be done with safety in mind. Failure in the system may cause the leg to retract or extend on its own. When working under or near the trailer, always use jack stands of appropriate rating to support the weight of the trailer.
The keyed switch must be in the off position and the key must be removed when the jack is not in use and/or when the trailer is in transit. If unit is not supplied with a keyed switch, the +12v battery lead must be fed through a power disconnect switch to fully isolate the system during inactivity or travel. The minimum switch rating must be 80 ampere DC.

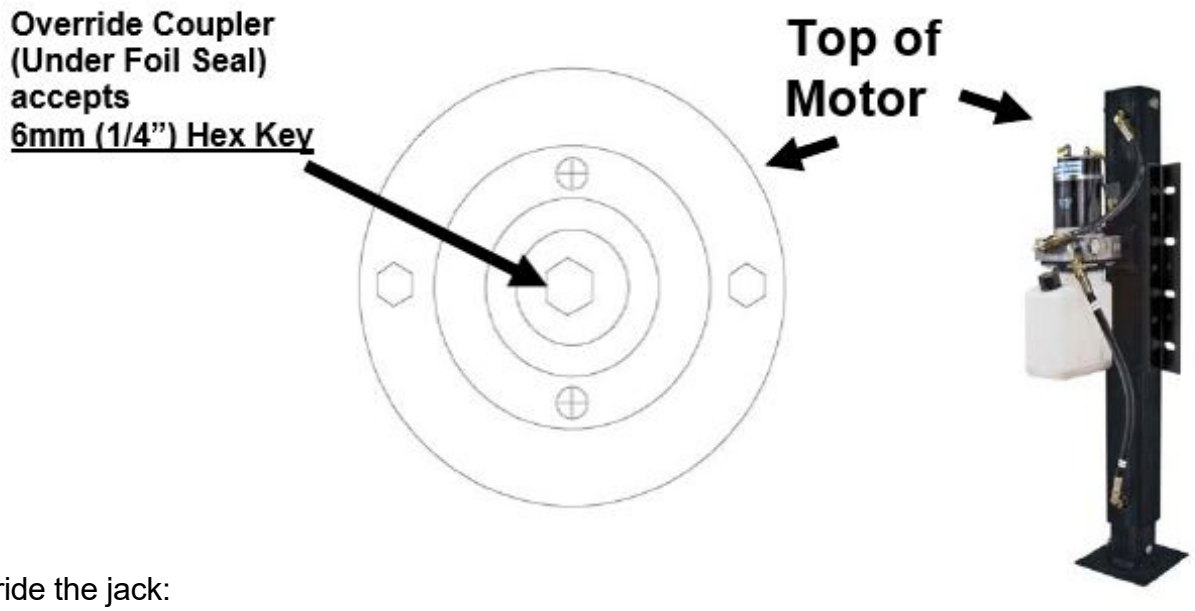
MANUAL OVERRIDE

The AJ series single jack has provisions for manual override. The following procedure gives systematic instructions on how to operate the manual override to either retract or extend the jacks.

Required Items:

- Reversible Drill- capable of producing a minimum of 2000 r.p.m. for the pump to develop appropriate pressure output.
- 6mm (¼") Hex Key (Allen wrench) bit or driver

The hydraulic power unit is equipped with a manual override output shaft. The override shaft is located on the top of the motor in the center under a foil seal.



To override the jack:

Remove the foil seal from the top of the motor. Use a small flat head screwdriver if necessary.

Insert the 6mm (¼") hex key (Allen) bit on the manual override shaft located at the top of the motor.

To Retract:
Run drill in the clockwise direction at 2000 r.p.m. (minimum). The jack will retract.

To Extend:
Run drill in the counterclockwise direction at 2000 r.p.m. (minimum). The jack will extend.

PROBLEM SOLVING

“The jack runs for a few seconds, then stops” The battery is weak or battery capacity is diminished. Charge the battery fully. It may be necessary to “load test” the battery.

“The jack only runs in one direction” Verify appropriate battery voltage. Verify that all wires are attached appropriately. Verify proper function of the switchgear.

“I push the switch and nothing happens” Ensure both positive and negative -12V have adequate connection. Ensure full charge on your battery. The vast majority of calls to the EQ Systems Help Desk are related to low battery voltage. Ensure that the unit is properly grounded to the battery with a minimum # 6-gauge wire. Check all associated wiring.

“The jack is jerky when retracting” This may be caused by air in the system, low fluid level, or incorrect hose installation. To purge leg, add fluid as necessary and run the leg to full extension and retraction at least twice. If problem persists, call EQ Systems for assistance.

Fluid Level: When the jack is fully retracted, the fluid level in the reservoir should be approximately one inch below the fill cap. If fluid needs to be added, use Dexron III automatic transmission fluid (the same as used for a GM automobile).