

Instructions: 12 vdc, Single Acting (Power UP / Gravity DOWN) Unit

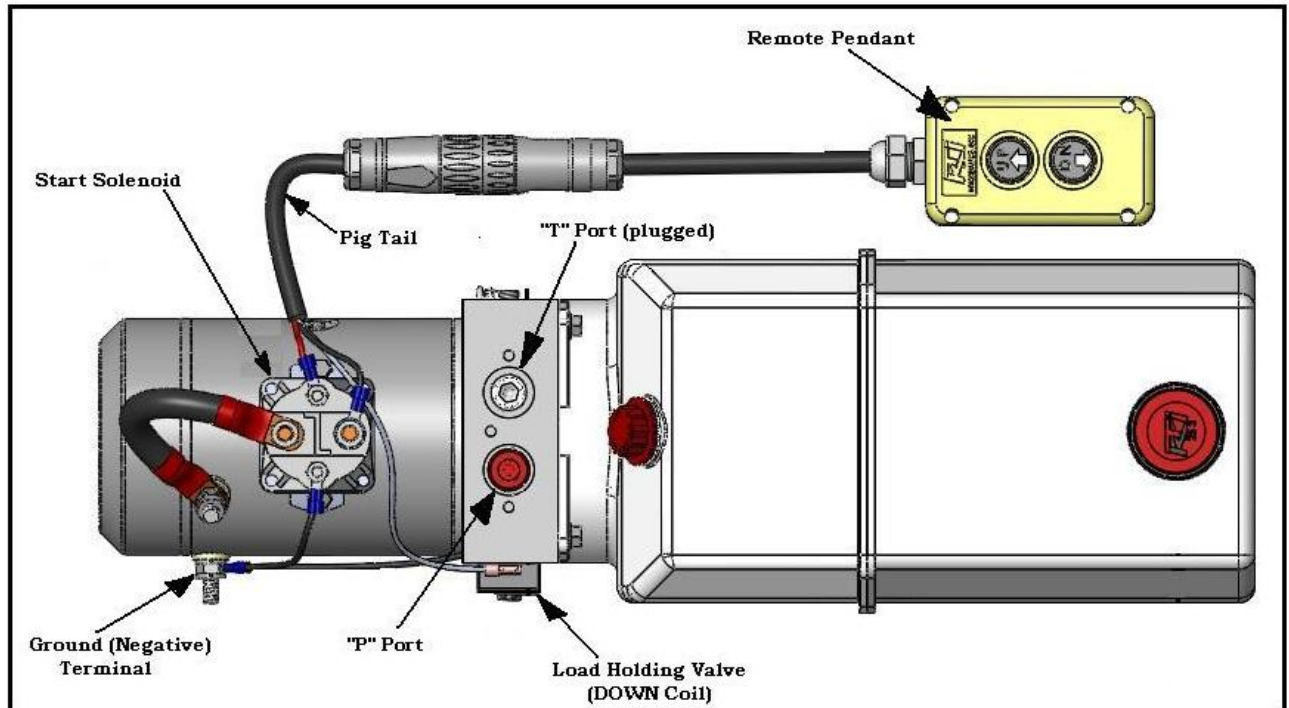


Diagram A-1

1. Install 9/16-18 SAE ORB, SAE #6, hydraulic fitting into "P" port. Torque to 18 ft-lbs.
2. Remove the two-button pendant from the power unit at the quick disconnect.
3. Mount the Power Unit using two, 3/8-16 UNC mounting bolts (*diagram A-2*)
4. With the cylinder full retracted, remove the Filler/Breather Cap and fill the reservoir with hydraulic oil to "FILL LINE".(see *fluid recommendations*). Replace the filler/breather cap.
5. Connect the Hydraulic Line from the base of the cylinder to port "P". Check the torque specification of the hose fittings..
6. Connect the battery **Ground** cable to the **Ground** terminal of the DC Motor (*diagram A-3*).
7. Connect the **Positive** cable from the battery to the start solenoid (*diagram A-4*).
(See *Battery Cable Gauge table* for proper gauge for your length of cables.)
8. Holding the bottom nut with a wrench, torque the battery connections to 3 lb-ft.
9. Reconnect the two-button remote pendant at the quick disconnect.
10. Operate the power unit while also keeping an eye on the fluid level in the reservoir.
 - a. Extend the cylinder half way and then fully retract.
 - b. Check the oil level and, if necessary, fill the reservoir to the "Fill Line".
 - c. Fully extend the cylinder while insuring that the oil level is greater than 2 inches from the bottom of the reservoir.
11. Run the cylinder Up and Down until all the air is removed from the hydraulic oil.

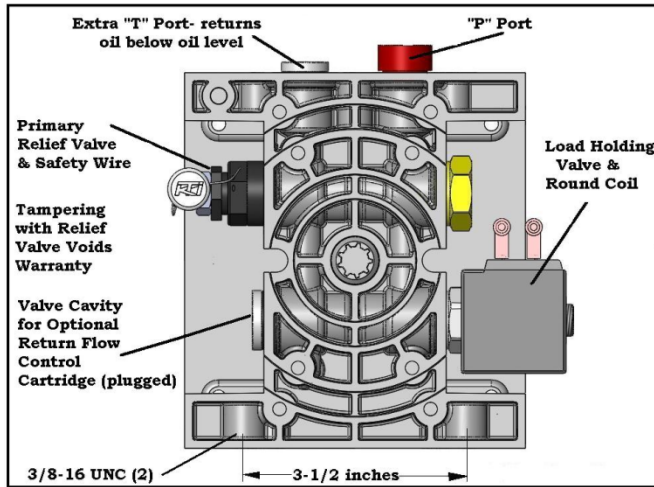


Diagram A-2

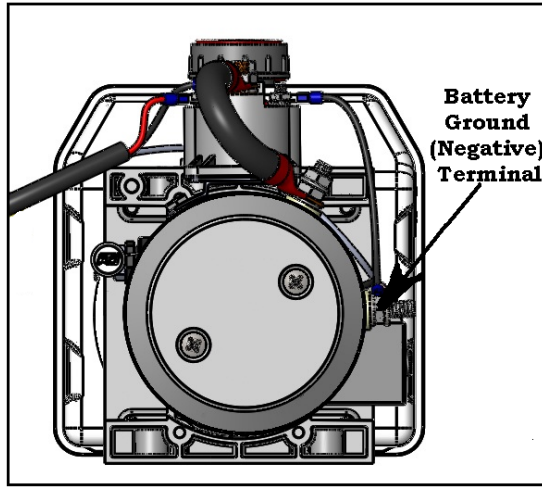


Diagram A-3

Fluid Recommendations

KTI recommends using a premium hydraulic oil to ensure optimum performance and system life. Select oil that has anti-wear properties, rust and oxidation inhibitors, foam inhibitors and good stability. Examples of premium grade hydraulic oils: Chevron Rando HDZ, Mobil DTE 10, DTE 20 series, AMSOIL, and Shell Tellus.

Automotive Transmission Oils are acceptable under normal conditions.

Aviation Oils such as Valvoline ROYCO series or Mobil Aero HF or HFA may be used in **prolonged, extreme cold** environments.

Do Not Use Biodegradable Hydraulic Fluid. Do Not Mix Oils.

Ambient Temperature Range

ISO Viscosity Grade

- 20°F to + 32°F
(- 29°C to + 0°C)

15

+ 14°F to + 120°F
(- 10°C to + 49°C)

22, 32, ATF

Battery Cables

To minimize voltage drop, increase the gauge size of the battery cables as the length of the positive and ground cables increase. Low voltage will cause the motor to run at higher amps and may cause damage to other electrical components.

Cable Length	Wire Gauge	Nominal OD (in.)
1 to 2 feet	4 gauge	0.43
3 to 4 feet	2 gauge	0.49
5 to 7 feet	1 gauge	0.56
8 to 9 feet	1/0 gauge	0.61
10 to 12 feet	2/0 gauge	0.66
13 to 15 feet	3/0 gauge	0.72
16 to 19 feet	4/0 gauge	0.78

