



Parker Hannifin Corporation

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108 SERIES POWER UNIT

INSTALLATION & START-UP PROCEDURE

1. Mount the unit securely in a vertical position with the motor up. (Unless the unit was ordered specifically as a horizontal mount.)
2. Wire the motor using the appropriate wiring diagram on the back of this page. If your motor code is not shown, consult the factory for assistance.
3. Fill the reservoir with automatic transmission fluid or any clean hydraulic oil with a viscosity range of 150-300 SSU at 100° F. NOTE: Choose a hydraulic fluid having a viscosity index that is suitable for the climatic conditions in which the unit will be operated. Recommended operating temperature range is +20° F to +180° F. Consult the factory for special low temperature pumps.

GENERAL START-UP INSTRUCTIONS

NOTE: The ports are marked on the casting 'UP' and 'DN'. When facing the power unit with the motor up, plug the right-hand, or 'DN' port. Jog the motor until oil flows from the left-hand, or 'UP' port. If oil does not flow from the 'UP' port, reverse the wire leads on the motor, and repeat. The pump is now primed. Connect the hose (or tubing) to the 'UP' port and tighten. Connect the other hose end to the blind end of a fully retracted hydraulic cylinder. With the hose fitting loose, operate the power unit until oil (and no air) bleeds from the fitting. Tighten the fitting. Refill the reservoir. To complete the system start-up, consult the following specific circuitry instructions appropriate for your power unit.

SINGLE DIRECTION POWER UNITS

Follow the general start-up instructions. When using an externally mounted directional control valve (DCV), connect the tank port of the DCV to the 'DN' port of the power unit. If using an externally mounted two-way release (dump) valve, tee the valve into the pressure line and plumb the oil return line to the 'DN' port. Cycle the system a few times to ensure the air is out of the circuit.

(Over for more instructions and wiring diagrams)

REVERSIBLE POWER UNITS

After following the general start-up instructions, run the power unit in the 'UP' port rotation (same direction as previously run). Continue until the cylinder rod is fully extended, adding only enough fluid to the reservoir to get the cylinder extended. (Adding too much oil at this point could cause the reservoir to overflow when the cylinder rod is retracted.) Remove the plug from the 'DN' port and connect one end of the second hose to it, then tighten. Jog the power unit in the 'DN' port rotation (opposite direction of earlier), until oil (with no air) flows from the loose hose end. Connect and tighten the hose end onto the rod end cylinder fitting. Operate the power unit to fully retract the cylinder. Once retracted, check the oil level in the reservoir and add as needed to maintain full capacity.

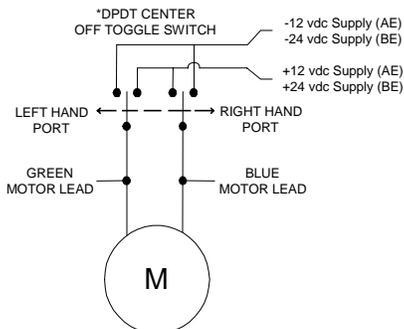
REVERSIBLE POWER UNITS USED WITH SINGLE ACTING CYLINDERS

Follow the general start-up instructions. Operate the power unit in the same direction as earlier to extend the cylinder fully. To retract, reverse the electric motor rotation. The cylinder will retract due to the load on the rod, or due to the use of a spring return type cylinder.

NOTE: The power unit itself will not retract the cylinder. Retracting relies solely upon external forces acting on the cylinder rod, such as a spring or load.

WIRING DIAGRAMS

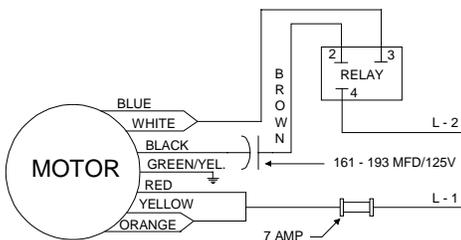
Wiring Diagram: AE & BE



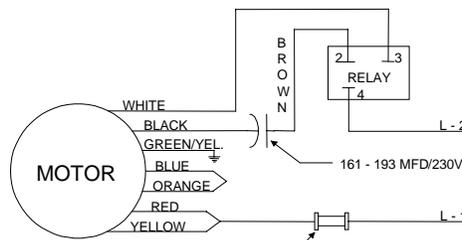
* DPDT CENTER OFF TOGGLE SWITCH USABLE UP TO 20 AMPS

Wiring Diagrams: HA & HD

Reliance Electric Motor Model KL-M330-BOL
 1/3 HP, 1Ø, 115/230 VAC, 50/60 HZ.
 Start Relay and Capacitor are supplied with unit.
TO REVERSE, INTERCHANGE THE RED AND BLACK LEADS.

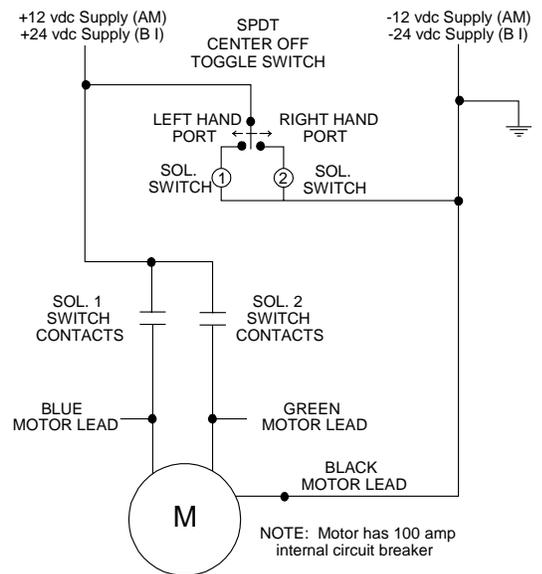


115 VOLTAGE CONNECTION



230 VOLTAGE CONNECTION

Wiring Diagram: AM & BI



NOTE: Motor has 100 amp internal circuit breaker