Bearing Installation Instructions for Part No. P.E. 4450, P.E. 4400

1. Remove the Two (2) bolts from the end of the motor. Then very gently pull the motor complete from the pump body.
2. Put a small center punch mark in the end of the armature shaft.
3. Smear grease on the armature shaft so the bearing does not "gall" the armature shaft when it is removed.
4. Use a small bearing puller to remove the old bearing.
5. WARNING!!! - Do not hammer on the armature or the bearing to remove, as this will damage the pump armature, thereby compromising the integrity of the pump.
6. Regrease the armature shaft before installing the new bearing.
7. Start the bearing on the shaft, then find a piece of tubing or drill a hole in a block to gentley ease the new bearing up the shaft until firmly seated in the original position.
8. Reassemble pump in the reverse order it was disassembled.

If you have any questions please call Product Engineering at:

(310) 830-6872

Product Engineering

Form No. 006 7/95

Seal Installation Instructions for Part No. P.E. 4450, P.E. 4400

1. Remove the Two (2) bolts from the end of the motor. Then very gently pull the motor complete from the pump body.

2. Remove the Phillips head screws from the pump body and take the complete cartridge assembly including the bronze wear plate out of the pump body.

3. Remove the old seal being careful not to damage the pump body.

4. Before installing the new seal, clean the seal pocket with acetone. The seal pocket must be free from all grease and dirt.

5. DO NOT grease the O.D. surface of the seal. The seal must be installed dry.

6. Insatall the new seal into the seal pocket. Check both sides of the pump body to make sure the seal is in the pocket with no deformity.

7. Check bearings on the pump motor armature shaft. If bearings show signs of wear, the bearing must be replaced. (See bearing replacement Instructions).

8. Grease both sides of the seal, also apply grease to the armature shaft and remaining "exposed" seal pocket.

9. Gently slide armature shaft through the seal and bolt the motor to the pump body.

10. Check the bronze wear plate. If the plate shows signs of wear (Wear "grooves") flip the wear plate over and install in the pump cavity.

11. Install the brown wear ring and impeller with the vane relief slot in the trailing direction of the armature rotation.(see figure 1)

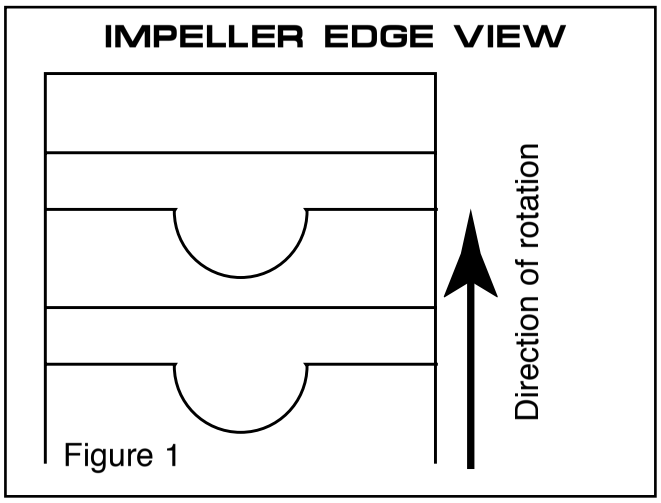
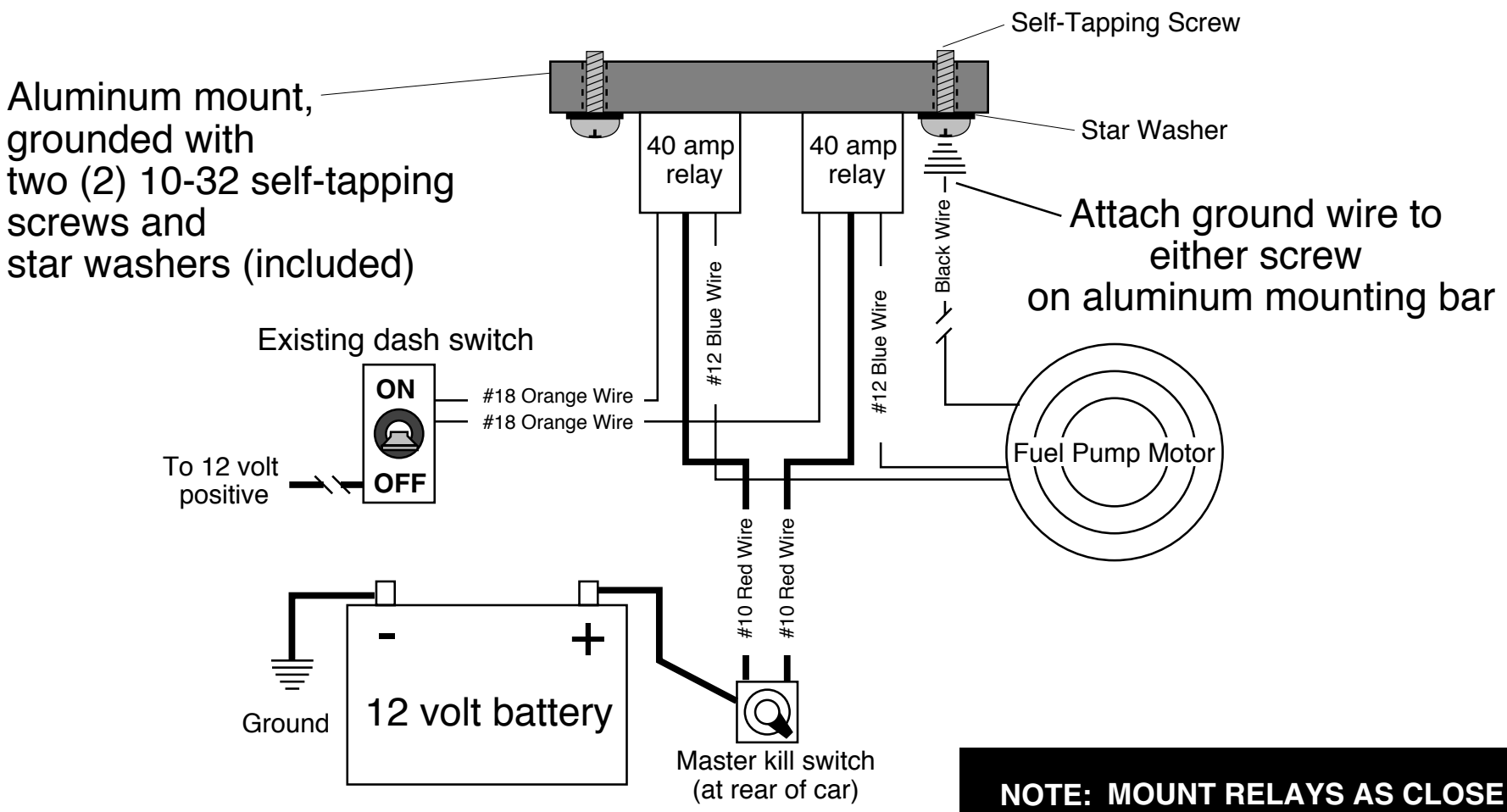


Figure 1

If you have any questions please call Product Engineering at: (310) 830-6872

Form No. 005 6/95

12-Volt Wiring Diagram for Failsafe Dual Relay Harness - #PE1050



NOTE: MOUNT RELAYS AS CLOSE TO PUMP AS IS POSSIBLE

Product Engineering

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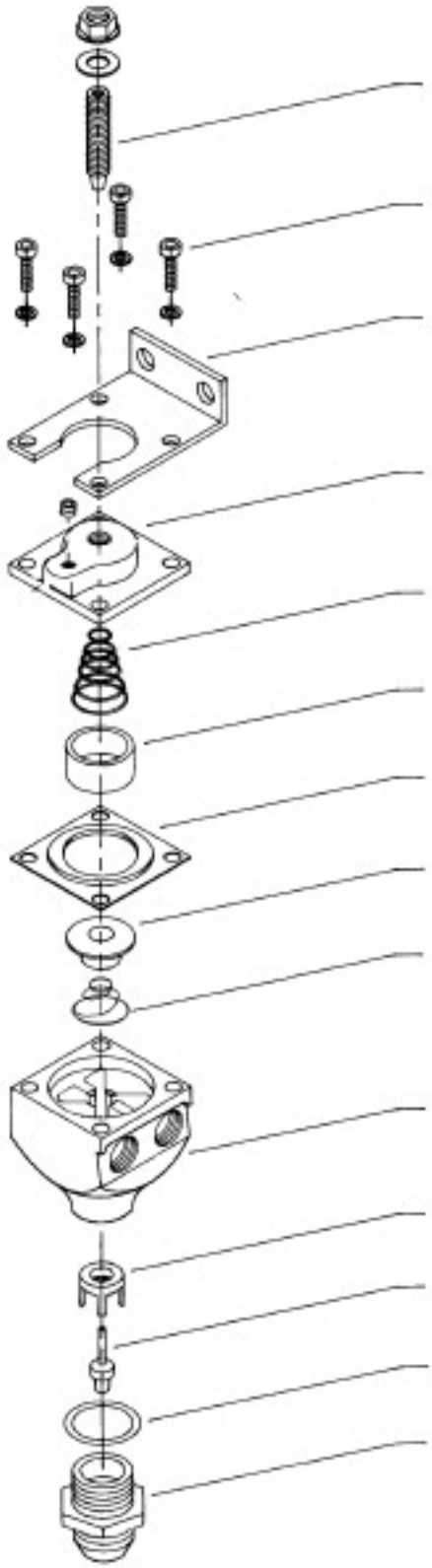
John J. Rademacher - owner

Form No. 004 6/95

P.E. 9000 Fuel Regulator



P.E. 9000-6
Adjustment Screw

P.E. 9000-15
Cover Bolts & Lockwashers

P.E. 9000-16
Mounting Bracket

P.E. 9000-2
Cover

P.E. 9000-9
Pressure Adustment Spring

P.E. 9000-4
Plunger Top

P.E. 9000-3
Diaphram* **NOTE** the Ridge side Must be facing upward for correct installation

P.E. 9000-5
Plunger Bottom

P.E. 9000-10
Cone Spring (Return Spring)

P.E. 9000-1
Body

P.E. 9000-12
Ball Seat

P.E. 9000-11
Ball & Rod Assembly

P.E. 6010
#10 O-Ring

P.E. 3023
#10 X #10 Radiused Inlet Fitting

Regulator Service Kit

P.E. 9000-18 Complete Overhaul Kit

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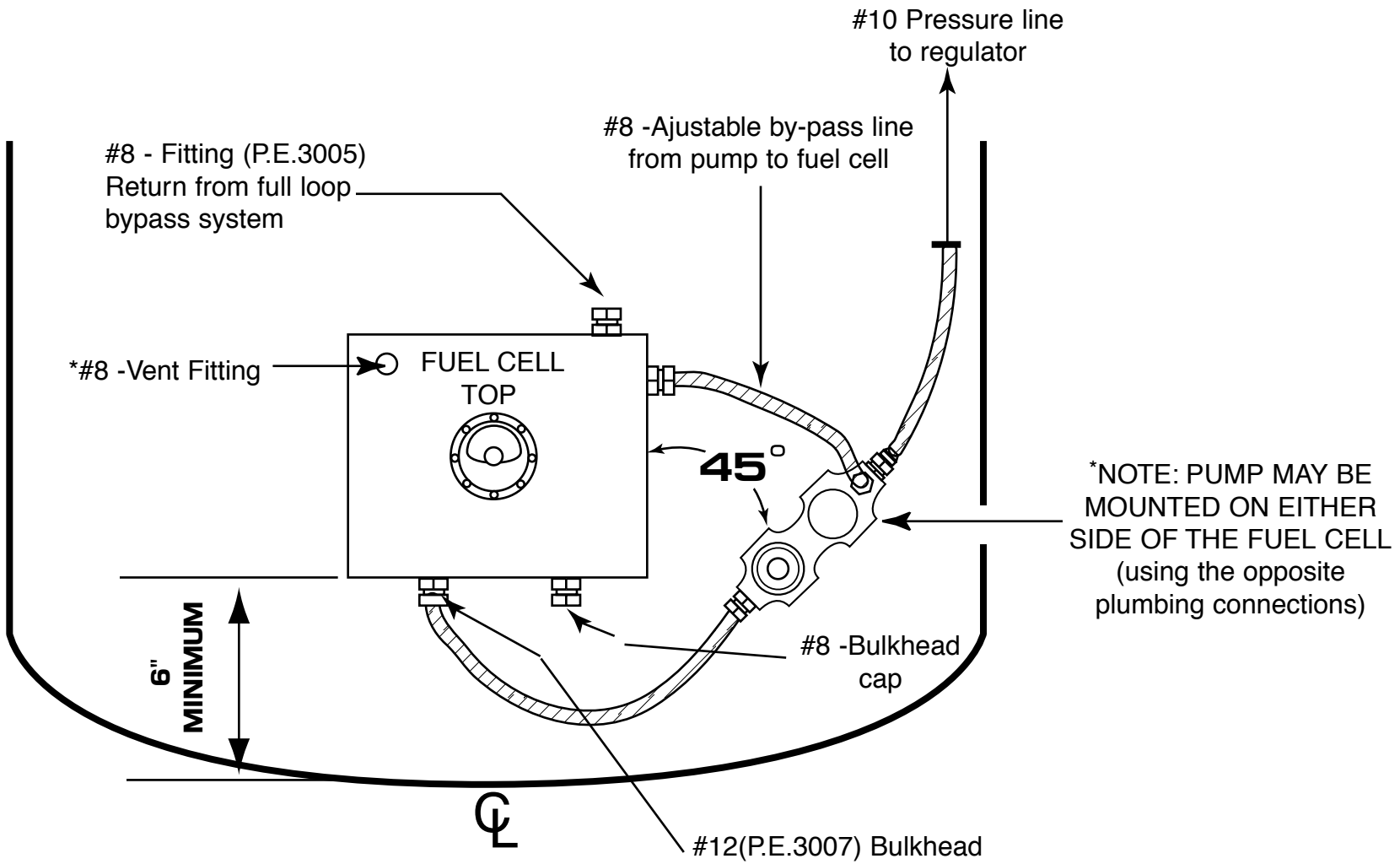


***NOTE: USE #6 VENT FOR 300 HORSEPOWER AND UNDER**

USE #8 VENT FOR 300 HORSEPOWER AND ABOVE

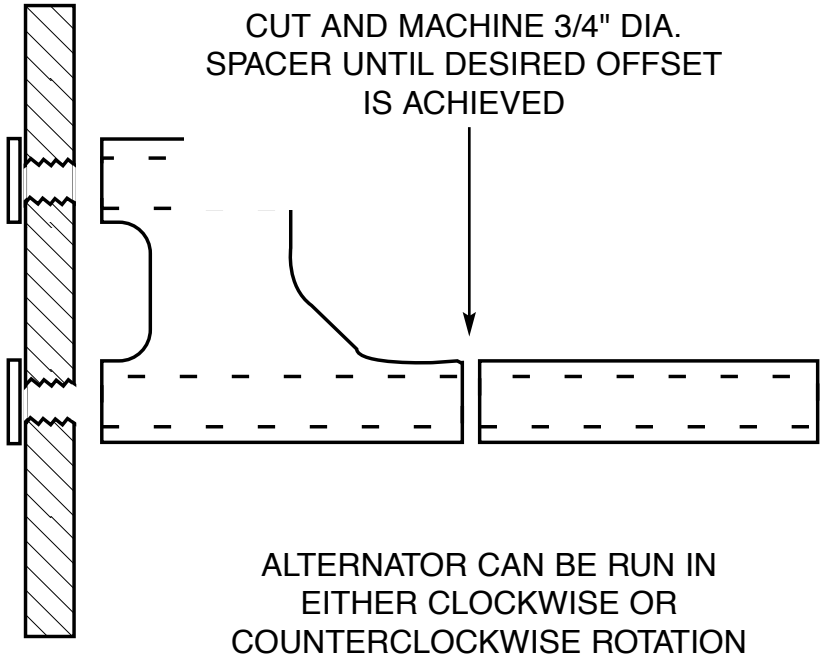
Product Engineering

P.E. 002
REV.1/95

MOTOR PLATE ALTERNATOR BRACKET KIT

DIRECTIONS

1. DRILL AND TAP 2 3/8" X 16 HOLES IN MOTOR PLATE
2. PUT LOCKNUTS ON BACKSIDE OF MOTORPLATE
3. INSTALL CRANK SPINDLE DRIVE FIRST
4. PUT NARROW BELT AROUND SPINDLE AND ON ALTERNATOR PULLEY.
5. MOVE OUT AWAY FROM CRANK SPINDLE UNTIL A DESIRABLE MOUNTING SPOT IS LOCATED.
6. DRILL AND TAP HOLES 3/8" - N.C.
7. ALTERNATOR IS BI-DIRECTIONAL



ALTERNATOR CAN BE RUN IN
EITHER CLOCKWISE OR
COUNTERCLOCKWISE ROTATION

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owner

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P.E. 004
REV.1/95