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ELECTRIC RESET

Field Service Manual

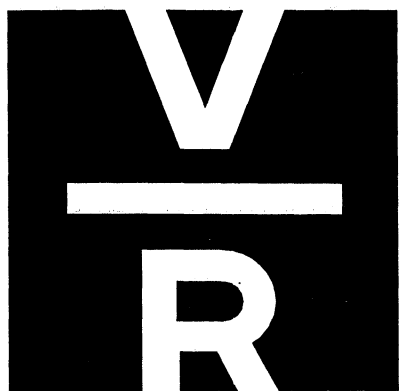
Series 7269 Electric Reset and Series 7680 Offset Electric Reset

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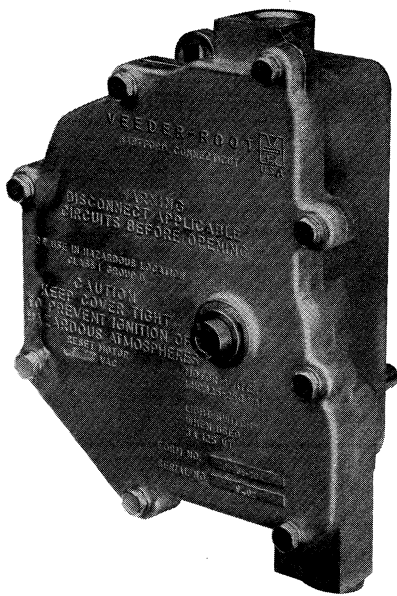
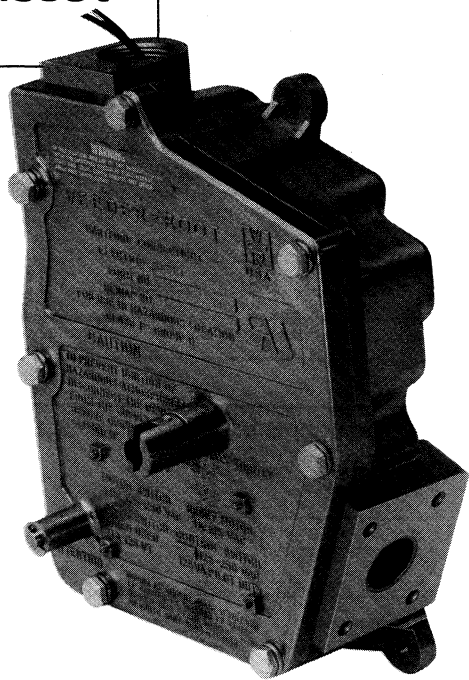


VEEDER-ROOT

Field Service Manual

Manual No. 231112R

**Series 7269
Electric Reset
and
Series 7680
Offset
Electric Reset**





**Field Service Manual
Series 7269 and 7680 Electric Reset**

SECTION I. INTRODUCTION

A. GENERAL. Every gasoline pump electric reset computer is thoroughly tested at the Veeder-Root factory and by the pump manufacturer when installed in the pump. However, like any precision built mechanism it requires periodic care to ensure service.

This manual has been compiled primarily for the manufacturer of gasoline pumps using the Veeder-Root Electric Reset Computer. With this in view it has been divided in two sections, dealing respectively with the basic operation and field service. Because the pump motor switch, light switch, and auxiliary switch are contained within the electric reset package, it is important to understand the operation of the electric reset before attempting to take corrective action. Vertical bars adjacent to text indicate information added or changed during revision date on page bottom.

For information not covered in this manual, refer to VR-101 Computer Service Manual, Form No. 231099.

Consult Veeder-Root Company on any unusual application, installation or possible modification of this basic design.

B. WARRANTY AND CONDITIONS. See back page.

C. SPECIFICATIONS.

Voltage: 115 or 230v-ac, 50/60 Hz, as specified

Control Switch: 16 amp, 125 to 250v-ac, 125VA pilot duty or 24v-dc, 2 amp, as specified

Pump Switch: 1 hp, 125 to 250v-ac

Light Switch: 3 amp, 125v-ac

Temperature Range: -40° to +160°F

Housing: UL component recognition for use in Class 1, Group D applications

SECTION II. OPERATION DESCRIPTION

A. SERIES 7269 ELECTRIC RESET. Figure 1.

1. The 7269 is mounted directly on the computer. The input coupling to the electric reset is located on the cover and is operated by a connecting shaft to the pump handle located on the outside of the pump.

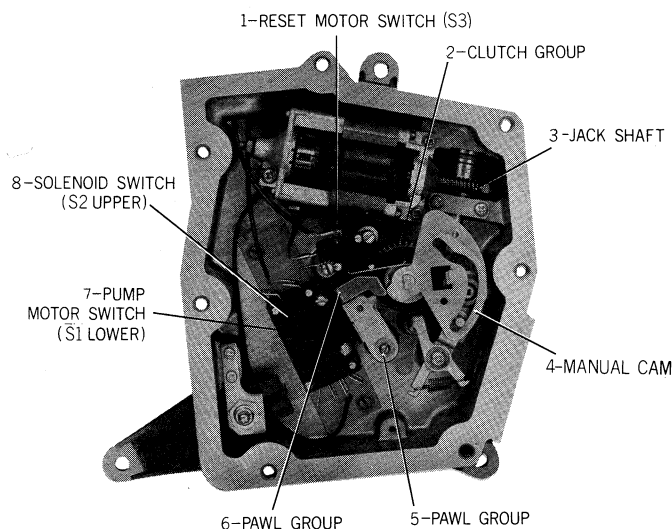


Figure 1. Series 7269 Electric Reset Parts Identification.

2. Depending upon the manufacturer of the pump, the reset may be turned on by either clockwise or counterclockwise rotation of this handle. Rotating the handle to "motor on" position closes switch, item 1, by means of cam, item 4. Closing switch, item 1, permits the reset motor to run, driving jack shaft, item 3. This power transmits thru the clutch group, item 2, and coupling to the computer, and provides the rotary motion necessary to reset the computer. These components are timed to provide an output rotation of 360 degrees.

3. During this 360 degrees, the computer shafts are shifted to the reset position, the wheels are returned to zero, and the shafts are shifted back to the "motor on" position. At this time the pump motor switch, item 7, is turned on by the switch pawl group, item 5. If additional switches are required to operate solenoid valves, interlocks, or other related devices, they too will be operated at this time.

4. Upon completion of this portion of the cycle, product delivery can be made. The pump motor is turned off by rotating the handle in the opposite direction at completion of delivery.

Note: See Parts List 231079 for placement and identification of parts.

B. SERIES 7680 OFFSET ELECTRIC RESET. Figure 2.

1. The 7680 is mounted on the pump frame. This model reset requires a suitable exterior operating handle and simple connection to join the reset shaft to the computer. A cam and an over-center spring are incorporated in the reset housing.

2. Rotating the handle to "motor on" position closes the switch, item 1, by means of cam (not shown) and lever, item 4. Closing switch, item 1, permits the reset motor, item 6, to run, driving the gear train, item 3. This power transmits through output drive assembly, item 2, and coupling to the computer, and provides the rotary motion necessary to reset the computer. These components are timed to provide an output rotation of 360 degrees.

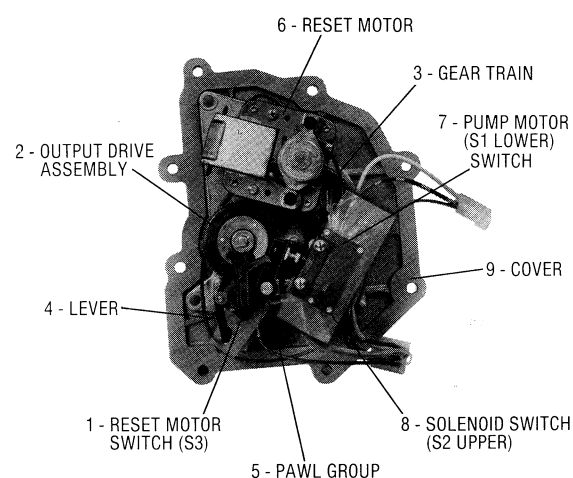


Figure 2. Series 7680 Offset Electric Reset Parts Identification.

3. During this 360 degrees, the shafts are shifted to the reset position, the wheels are returned to zero, and the shafts are shifted back to the "motor on" position. At this time the pump motor switch, item 7, is turned on by the switch pawl, item 5. If additional switches are required to operate solenoid valves, interlocks, or other related devices, they too will be operated at this time.

4. Upon completion of this portion of the cycle, product delivery can be made. The pump motor is turned off by rotating the handle in the opposite direction at completion of delivery. On the Series 7680, this rotation of the handle moves the cam (not shown) back to the starting position. The cam acts on the lever, item 4, which rotates item 2, shutting off the pump motor switch. This assures that once the pump is turned off it may not be turned on again until a full reset cycle has been accomplished.

Note: See Parts List 251146 for placement and identification.

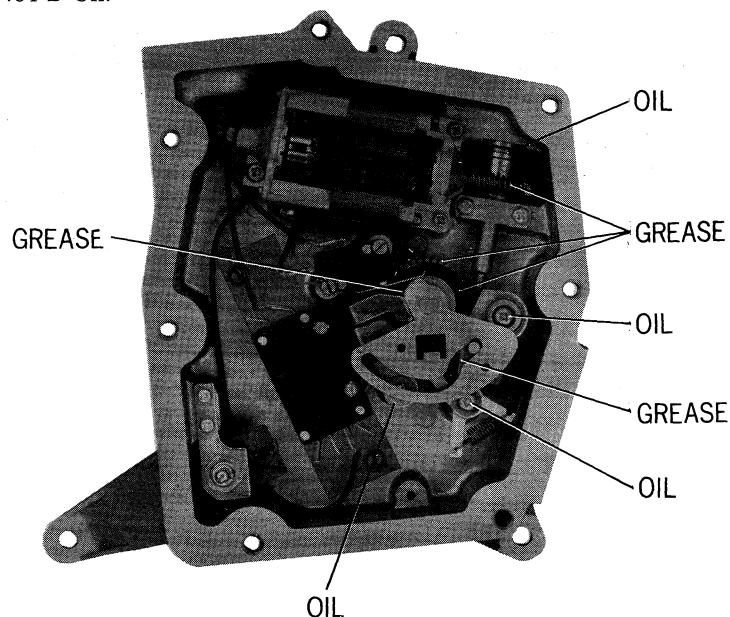
SECTION III. FIELD SERVICE

WARNING: IN INSTALLATION AND USE OF THIS PRODUCT, COMPLY WITH THE NATIONAL ELECTRICAL CODE; FEDERAL, STATE, AND LOCAL CODES; AND ALL APPLICABLE SAFETY CODES. IN ADDITION, TURN OFF POWER AND TAKE OTHER NECESSARY PRECAUTIONS TO PREVENT PERSONAL INJURY, PROPERTY LOSS AND EQUIPMENT DAMAGE.

A. LUBRICATION.

WARNING: POWER MUST BE OFF WHEN WORKING ON UNIT IN THE PUMP. TO PREVENT PERSONAL INJURY, PROPERTY LOSS AND EQUIPMENT DAMAGE.

1. Under normal conditions lubrication will be necessary only once a year.
2. Figure 3 shows the points that must be lubricated in the power package. For lubrication of the computer refer to VR-101 Computer Service Manual. Apply oil or grease to all points indicated. Use Anderol L-795 Grease and Anderol 401-D Oil.



CAUTION: DO NOT LUBRICATE THE MOTOR BEARINGS. THEY ARE SELF-LUBRICATING AND OVER LUBRICATION MAY DAMAGE THE BEARINGS.

B. SWITCH REPLACEMENT.

WARNING: POWER MUST BE OFF WHEN WORKING ON THE UNIT TO PREVENT PERSONAL INJURY, PROPERTY LOSS AND EQUIPMENT DAMAGE.

Note: When replacing switches S1 and S2, ensure that the replacement switches are of the same manufacture.

1. General. The electric reset, Figures 1, 2 and 4, contains three switches.

- a. S1 is the pump motor control.
- b. S2 is used as a solenoid control where this is needed.
- c. S3 is the electric reset motor control.

2. Pump Motor Switch (S1) and Solenoid Control Switch (S2) Replacement and Adjustment for Series 7269.

In early models, S1 and S2 switches are replaced by removing two screws and exchanging the switches. In more recent models, S1 and S2 are replaced by first removing the switch mounting plate. Early style Series 7269 and current model 7627 electric resets have no adjustment for these two switches. Models of Series 7269 made after approximately March 1, 1973, do have an adjustment feature which is set as follows:

- a. Remove all power to the electric reset.
- b. Connect an ohmmeter across terminals S1-B common and S1-B N.O. or S2-B common and S2-B N.O. (if installed).
- c. Turn the clutch group, item 2, by hand until pawl group, item 5, rides upon the outside diameter of the cam.
- d. Loosen two screws on the switch adjusting plate and insert a screwdriver blade in the notch on one end of this plate.
- e. Insert a 0.020 in. feeler gage between the switch actuating button and the switch pawl group.
- f. Twist the screwdriver so the switch moves with respect to the pawl group, item 5, and continuity is registered on the ohmmeter.

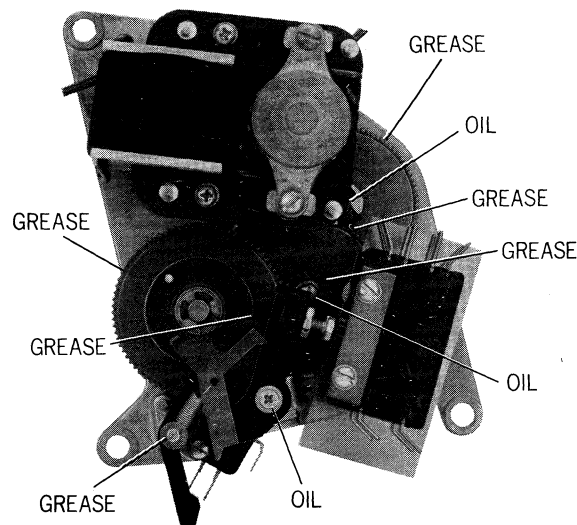


Figure 3. Series 7269 and 7680 Electric Reset Lubrication.

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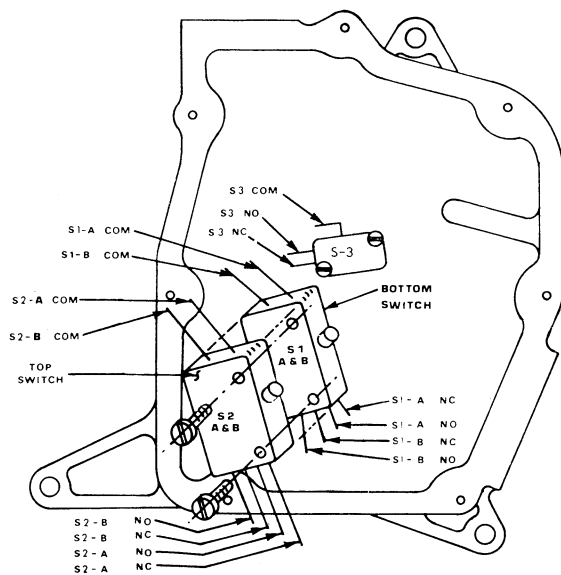


Figure 4. Electric Reset Switch Identification.

g. Once continuity is attained, continue to adjust the switch until the operating button is depressed as far as it will go. Tighten the two screws on the switch adjusting plate.

h. Remove the feeler gage. The switch adjustment is now correct.

3. Pump Motor Switch (S1) and Solenoid Control Switch (S2) Replacement and Adjustment for Series 7680 (see Figure 2).

Note: Always adjust S1 first.

- Remove all power to the electric reset.
- Insert reset motor subassembly in cover, item 9, to stabilize the output drive assembly while adjusting switches.
- Connect an ohmmeter across terminals S1-B common and S1-B N.O. or S2-B common and S2-B N.O. (if installed).
- Rotate the mechanism by hand until pawl, item 5, rides upon the outside diameter of its cam.
- Loosen lock nut, Figure 5. Turn adjusting screw until continuity is registered on the ohmmeter.

CAUTION: TO AVOID MISALIGNMENT, DO NOT LOOSEN THE TWO RETAINING SCREWS HOLDING THE SWITCHES TO THE PLATE.

f. Once continuity is attained, turn adjusting screw an additional 5/6 turn (approximately 0.028" linear movement).

g. Tighten lock nut to 6 lb-in. while keeping the adjusting screw from rotating.

h. Adjust second switch (if installed) as just described.

4. Reset Motor Switch (S3) Replacement, item 1, Figure 1:

- Disconnect the leads.
- Remove the mounting screws and washers.
- Install a new switch, making sure the blade actuator is above the clutch group cam on Series 7269.
- Secure the switch with the screws and washers. Reconnect the leads.

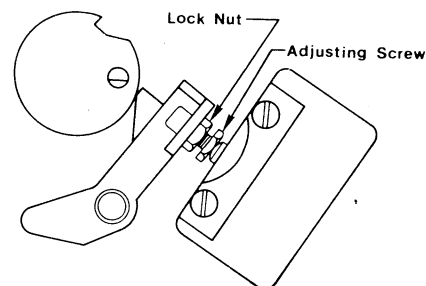
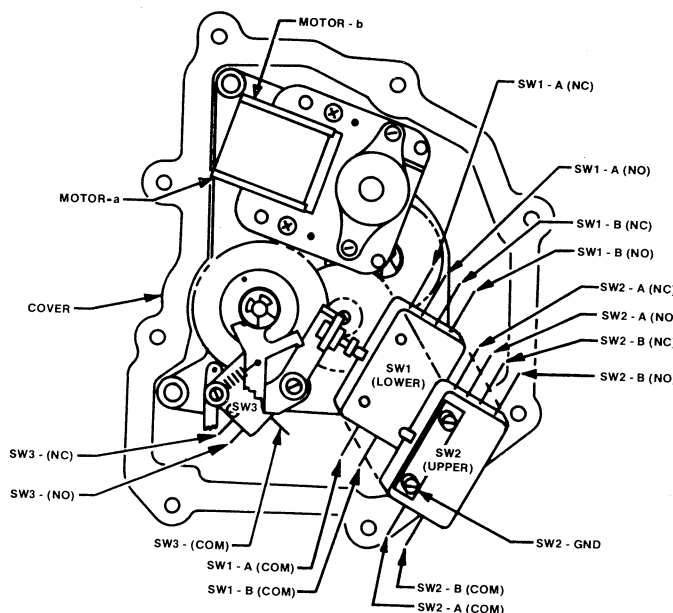


Figure 5. Series 7680 Internal Switch Adjustment.

Note: While tightening the screws, use finger pressure to rotate the switch so that the blade actuator is toward the center shaft on Series 7269.

C. CLUTCH GROUP REPLACEMENT – SERIES 7269 ELECTRIC RESET. Figure 1.

WARNING: POWER MUST BE OFF WHEN WORKING ON THE UNIT. TO PREVENT PERSONAL INJURY, PROPERTY LOSS AND EQUIPMENT DAMAGE.

- Remove the reset motor switch, item 1, the cam, item 4, and the pump motor switch, item 7.
- Rotate the switch pawl group, item 6, to the left and remove the clutch group retaining ring.
- Lift out and replace the clutch. Reverse procedure for installation.

D. PUMP HANDLE STOP ADJUSTMENT – SERIES 7269 ELECTRIC RESET. Figure 6.

- Where possible, examine the reset cam to determine if the electric reset is a counterclockwise or clockwise model.

Note: Many pumps have permanent stops which are not adjustable.



2. When the pump handle is turned to the “motor on” position, the distance between the post in the cam slot and the end of the cam slot must be 1/8 inch minimum to 3/8 inch maximum. This is accomplished by gently turning the pump operating handle to the “on” position until it reaches the end of its travel. Back the handle off by approximately 1/2 inch and adjust the handle stop to this point. Check this position by returning the handle to the “off” position and again turn the pump on. If the pump starts, then the handle is adjusted correctly.

Note: The pump motor switch is factory adjusted to actuate at 3/8 inch in the “motor on” position.

3. Adjust the pump handle to the “motor off” position in the same manner. If the motor is off at this point, the adjustment is correct.

CAUTION: TO PREVENT ELECTRIC RESET DAMAGE BE SURE THERE IS 1/8 INCH MINIMUM CLEARANCE BETWEEN THE POST AND ENDS OF THE CAM SLOT IN BOTH “MOTOR ON” AND “MOTOR OFF” POSITION.

E. EXTERNAL PUMP HANDLE STOP INSTALLATION – SERIES 7269 ELECTRIC RESET. Figure 7.

External pump handle stops must be used to prevent damage to the internal stops of the electric reset. If external stops do not exist on the pump frame, they must be installed.

1. Install external stops on the pump frame so the cam does not reach the extreme limits of the internal stops.

Note: There are both clockwise and counterclockwise resets. Be sure to use the appropriate limit information in Figure 7.

F. SERIES 7269 RESET COVER REPLACEMENT. When installing the reset cover, be sure the slot in the center shaft mates with the cam tang. Install all bolts finger-tight. Turn the center shaft couplings to ensure proper engagement. Tighten the cover bolts.

G. SERIES 7680 RESET COVER REPLACEMENT. When installing the reset cover, be sure that both the operating handle and the internal parts are in the pump motor ON position (See Section II, Paragraph B). Failure to follow this procedure could result in output shaft binding.

CAUTION: BEFORE UNIT IS APPROVED AND RETURNED TO NORMAL USE, PERFORM A COMPLETE VISUAL AND OPERATIONAL CHECK OF THE TOTAL SYSTEM TO PREVENT EQUIPMENT DAMAGE.

SECTION IV. PARTS

See Parts List No. 231079 for Series 7269 Electric Reset.

See Parts List No. 251146 for Series 7627/7680 Electric Reset.

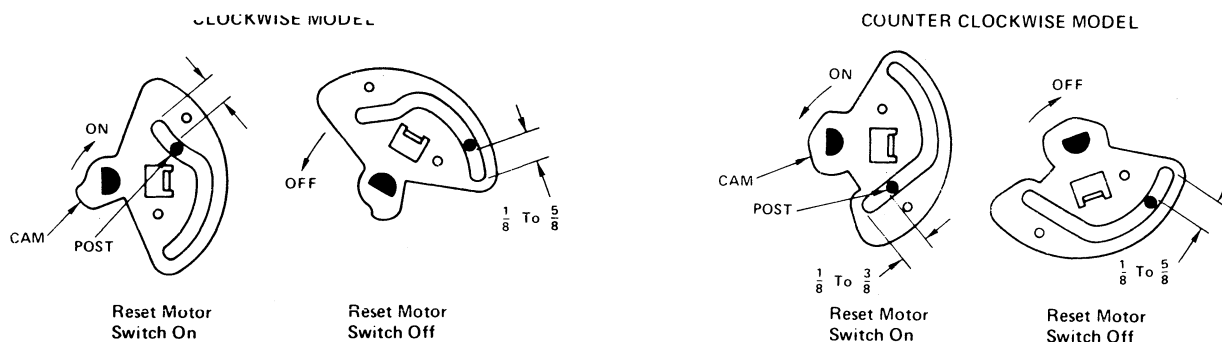


Figure 6. Pump Handle Stop Adjustment – Series 7269 only.

H. TROUBLESHOOTING.

TYPE OF FAILURE	POSSIBLE CAUSE	CORRECTION
Nothing happens when pump handle is turned on or off.	Lack of power to the pump, or product in the tank.	Check circuit breakers and/or fuses, as well as switches. Check tank for product.
Computer resets, pump motor does not run.	Self-contained Pump: 1. Faulty switch, item 7, Fig. 1. 2. Faulty pump motor. 3. Broken wire or connection to pump motor. Remote Pump: 1. Faulty switch, item 7, (lower) Figure 1. 2. Faulty auxiliary or solenoid switch, item 8 (upper). 3. Upper pawl stuck, item 6.	Use ohmmeter for continuity check. Replace broken or malfunctioning parts.



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H. TROUBLESHOOTING – Continued

Computer does not reset, pump motor does not operate.	With the cover off, check tang on item 4, on Series 7269. Be sure it is not broken and cam is attached securely to the shaft. Improper pump stop adjustment. Open circuit or defective reset motor switch, item 1. Broken tang between the electric reset package and the computer shaft cam.	If tang is broken, replace item 4, on Series 7269. Be sure that the pump handle stops are in proper relation to the electric reset stops. For this relationship, refer to paragraph D. With the cover off, rotate cam item 4, to “motor on” position, and with an ohm-meter check the continuity of the reset motor switch, item 1, across wired terminals. An open circuit would indicate a defective switch. Replace item 1. Replace cam.
Electric reset has cycled, computer does not reset, and pump motor runs.	Check all pins in drive train of computer. Possible broken or missing drive washer between computer and electric reset package.	Replace broken pin. Replace washer.
Pump motor operates continuously, cannot be turned off.	Defective pump motor switch, item 7. Possible pin sheared on electric reset cover coupling. Broken tang on cam, item 4, on Series 7269 or broken braze. Defective clutch mechanism, item 2, on Series 7269. Inspect leads for broken wires.	Replace switch, Paragraph B. Replace pin. Replace cam. Replace cam group. Replace wires.
Electric reset motor runs continuously in off position.	Defective switch, item 1. Defective clutch group.	Replace switch, Paragraph B. Replace clutch group, Paragraph C.

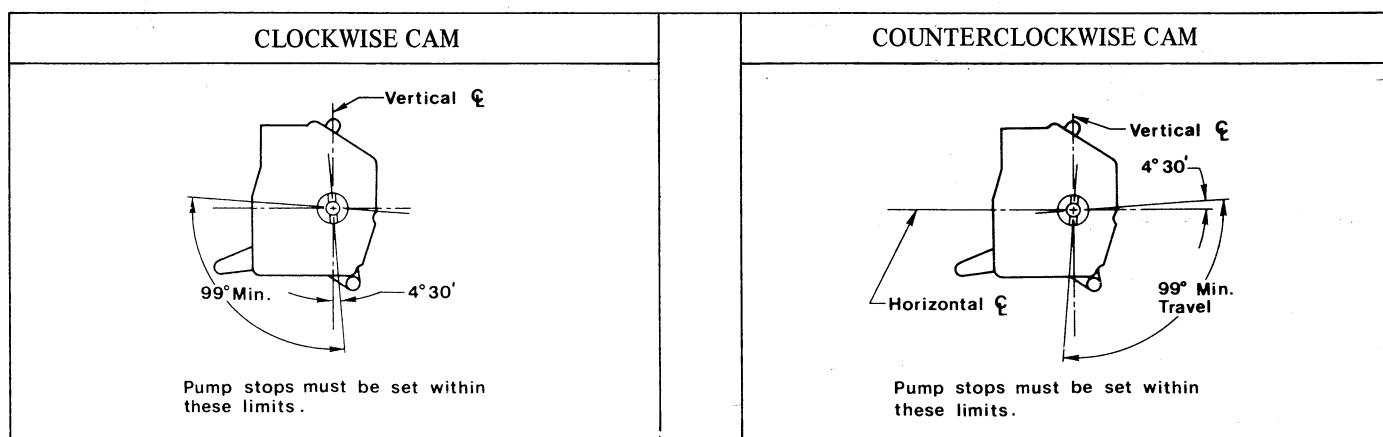


Figure 7. External Pump Handle Stops.

VEEDER-ROOT TERMS AND CONDITIONS OF SALE

1. All quotations are made and purchase orders are accepted on the following terms and conditions. Notwithstanding any different or additional terms that may be embodied in your purchase order, your order is accepted only on the condition that you expressly assent to these terms and conditions.

2. Minimum Orders:

Products and Accessories	\$200.00 net price
Repair Service	50.00 net price
Parts	100.00 net price

For smaller orders and local service, contact the nearest Veeder-Root Authorized Stocking Distributor.

3. Payment Terms:

Product: Net 30 days.
Tools: Payable on presentation of invoice.
These terms are subject to the approval of our Credit Department.

4. F.O.B. Points: Products are shipped F.O.B. our factories as follows:

Petroleum Products:
Mechanical computers and Meter Registers, Altoona, PA
presets and printers Altoona, PA
Tank level sensors/UST monitoring systems Altoona, PA

For exact F.O.B. point information for any specific product, contact the nearest Veeder-Root Sales Office.

5. Price: The quoted prices are our current prices, but it is agreed that the prices to be paid by you are our prices in effect at the time of shipment.

6. Delivery: Quoted delivery dates are our best estimates and we assume no liability for delays.

7. Warranty: We warrant that our products shall be free from defects in material and workmanship for a period of one year from the date of shipment thereof or the product's total rated life, whichever first occurs. Within the warranty period we shall repair or replace such products which are returned to us with shipping charges prepaid and which are determined by us to be defective. This warranty will not apply to any product which has been subjected to misuse, negligence, or accident; or misapplied; or used in violation of product manuals, instructions or warnings; or modified or repaired by unauthorized persons; or improperly installed.

8. Inspection: You shall inspect the product promptly after receipt and shall notify us in writing of any claims, including claims of breach of warranty, within thirty days after you discover or should have discovered the facts upon which the claim is based. Your failure to give written notice of a claim within the time period shall be deemed to be a waiver of such claim.

9. Limitation of Remedy and Warranty: The provisions of Paragraph 7 are our sole obligation and exclude all other remedies or warranties, express or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE, whether or not purposes or specifications are described herein. We further disclaim any responsibility whatsoever to you or to any other person for injury to person or damage to or loss of property or value caused by any product which has been subjected to misuse, negligence, or accident; or misapplied; or used in violation of product manuals, instructions or warnings; or modified or repaired by unauthorized persons; or improperly installed.

10. Limitation of Damages: Under no circumstances shall we be liable for any incidental, consequential or special damages, losses or expenses arising from this contract or its performance or in connection with the use of, or inability to use, our product for any purpose whatsoever.

11. Limitation of Actions: No action regardless of form arising out of this contract may be commenced more than one year after the cause of action has accrued, except an action for nonpayment.

12. Tools: Your share of tools, molds, dies and any other equipment, made especially for you and charged to you, will be deemed your especially for you and charged to you, will be deemed your property and will be held for your exclusive benefit. No such equipment shall, however, be removed from our plant. As long as it will remain in use, we shall assume responsibility for proper repair and upkeep, but not total replacement when worn out through use. However, and anything herein above to the contrary notwithstanding, we reserve the right to dispose of any and all such equipment upon such terms and conditions as we in our sole discretion may determine should its use not be required by you for any period in excess of two years.

13. Patents: With respect to any device or equipment of our standard manufacture, we have the right, at our option, and at our expense, to defend you (but not your assigns, vendees, or users of such devices or equipment) in any action brought against you in any court of competent jurisdiction alleging that such device or equipment in the form or condition as furnished by us infringes any United States patent; and we shall pay any final award of damages assessed against you in any such suit to the extent that such allegations are sustained; provided you promptly notify us of any such charge of infringement or the filing of any such suit, and provided further that you give us full and exclusive control of the defense of such suit. This agreement to defend and indemnify does not

apply to allegations either that you actually induced infringement or that you are liable as a contributory infringer. As to goods not of our standard manufacture, we make no warranty that the goods sold hereunder will be delivered free of the rightful claim of any third party by way of infringement or the like. If the goods are to be furnished to your specifications, you agree to indemnify us and our successors and assigns against all liabilities and expenses resulting from any claim of infringement of any patent in connection with the production, sale, or use of such goods.

14. Packing: Any packing requirements other than our standard packaging and commercial container will be invoiced as an extra charge.

15. Collateral Promises: There are no representations, warranties, or conditions express or implied, statutory or otherwise except those herein contained, and no agreements or waivers collateral hereto shall be binding on either party unless in writing and signed by you and accepted by us at our Simsbury office.

16. Changes By You: It is understood that the prices herein are subject to adjustment by us in case of changes by you in specifications, quantities or delivery requirements after our acknowledgement of your order. It is further understood that all warranties, disclaimers, limitations of remedy and warranty, limitations of damages and indemnity agreements as contained in Paragraphs 7, 9, 10 and 11 herein together with all other paragraphs hereof shall apply with respect to all goods covered by any such change and that no modification or rescission of any such warranty, disclaimers, limitation of liability for damages or indemnity agreement shall be binding on us unless contained in express writing to that effect signed by us.

17. Termination:

- A. As to contracts to design and develop a special product to meet a customer's requirements, we reserve the right, without any liability whatsoever, to terminate our obligations hereunder if, in our bona fide judgement, the product to be developed or designed will not serve the purposes set forth herein.
- B. You may cancel this order, in whole or in part, upon written notice to us and upon payment of cancellation charges, which shall be the sum of (1) the order specified price of all goods that have been delivered and not previously paid for, plus (2) the actual cost incurred by us that is properly allocable to the goods not delivered at the time of decrease or cancellation, including, without limitation, the cost of special components and materials purchased for use in producing such goods, plus (3) the profit, including reasonable overhead, that we would have made from full performance by you, plus (4) the costs of engineering, prototypes, testing, tooling, and similar items produced for you, plus (5) the reasonable costs incurred by us in making settlement and effecting collection hereunder. The buyer may require delivery of any material (except special tools, molds, dies and any other equipment) for which payment is made.

18. Taxes: All quotations are subject to the federal, state and local taxes, if applicable at the point of destination.

19. Shipment: We shall attempt to ship in accordance with your instructions and by carrier of your choice. However, final selection of method of shipment and carrier shall be exercised by us entirely at our discretion and as deemed necessary by us.

20. Interpretation: Rights and liabilities arising out of any contract with us shall be determined under the Uniform Commercial Code as enacted in Connecticut.

21. Special Products: As to contracts to design and develop a special product to meet a customer's requirements, we will use our best efforts to design and develop the product whose purpose and specifications are described herein. However, we do not warrant that the product will be suitable for the intended application.

22. Delay or Nondelivery: We shall not be liable for any delay in delivery or failure to deliver hereunder when delivery has been made impracticable by fire, embargo, strike, difference with employees, accidents, acts of God, failure or inability to secure materials from usual sources of supply, or any other circumstances beyond our control, either of the foregoing nature or of any other nature.

23. Procedure Upon Impracticability: When we are excused from performance by force of the preceding paragraph or of the Uniform Commercial Code, you shall have the rights given by Sections 2-615 and 2-616 of the Code, and the procedure provided in those sections shall be followed.

24. Effect of Breach on Risk of Loss: Breach of this contract by us shall have no effect on the provisions controlling the risk of loss of the goods, and sections 2-510 (1) and 2-510 (2) of the Uniform Commercial Code shall have no effect on this contract.

25. Proprietary Information: If you disclose to us any proprietary information identified as such by you relating to the goods to be sold under this contract, whether such disclosure occurs prior to, contemporaneously with, or subsequent to the formation of this contract, no confidential relationship shall be established by such disclosure and we agree to accord such information the degree of protection we accord our own, similar information, but you agree that your rights against us with respect to such disclosure shall be limited to such rights as you may have under the Patent Laws of the United States. Notwithstanding the foregoing, you agree that our duties under this paragraph shall cease two years from the date hereof.

January 1, 1992
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