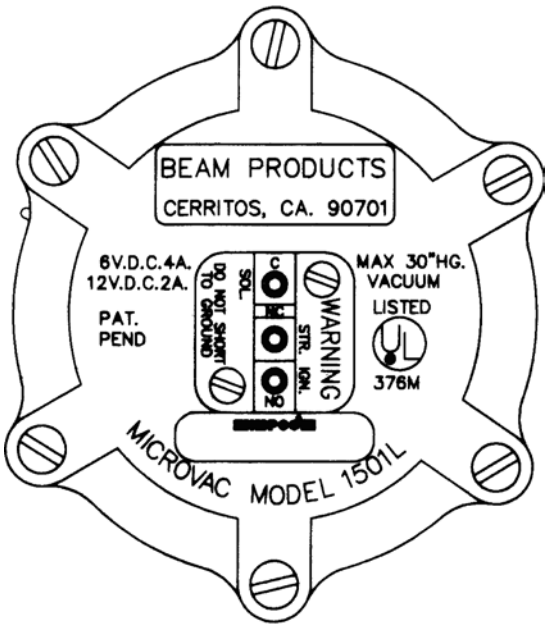
MICROSWITCH MODEL 1501-L
VACUUM SAFETY SWITCH

FEATURES

- Features a subminiature microswitch as a safety measure to stop fuel flow should the engine stop, even with ignition switch still on.
- Enclosed contact points provide a positive snap action with no arcing
- Instant closing of precision points at starting vacuum
- Vacuum connection is on opposite side of terminals for accessibility to wire connections.
- Set to close between negative 2-2.5 inches of water vacuum
- Large diaphragm ensures the switch remains closed when engine is running and down to negative1.5 inches of water vacuum
- Includes wire terminals and a wire mounting clamp

SPECIFICATIONS

- 6 or 12VDC
- 5-ounce weight
- Working Pressure: Maximum Vacuum of 30” of Mercury,
- Electrical Rating: 6-Volt D.C,. 4 amps; 12 Volt D.C. 2 amps
- Vacuum Connection: 1/8 Inch Female Pipe



The Beam/Garretson Model 1501-L

Certification: UL (AU1682)

WARNING:

IMPROPER INSTALLATION OR USE OF THIS PRODUCT MAY CAUSE SERIOUS INJURY AND/OR PROPERTY DAMAGE.

SERVICE TECHNICIANS AND USERS
SHOULD CAREFULLY READ AND ABIDE BY THE PROVISIONS SET FORTH IN NATIONAL FIRE PROTECTION ASSOCIATION PAMPHLET #37 FOR STATIONARY ENGINES, #52 FOR CNG VEHICULAR FUEL SYSTEMS OR #58 FOR LPG SYSTEMS.

INSTALLERS
LPG INSTALLATIONS IN THE UNITED STATES MUST BE DONE IN ACCORDANCE WITH FEDERAL STATE OR LOCAL LAW, WHICHEVER IS APPLICABLE AND NATIONAL FIRE PROTECTION ASSOCIATION PAMPHLET #58, STANDARD FOR STORAGE AND HANDLING OF LIQUEFIED PETROLEUM GASES TO THE EXTENT THESE STANDARDS ARE NOT IN VIOLATION WITH FEDERAL, STATE OR LOCAL LAW.

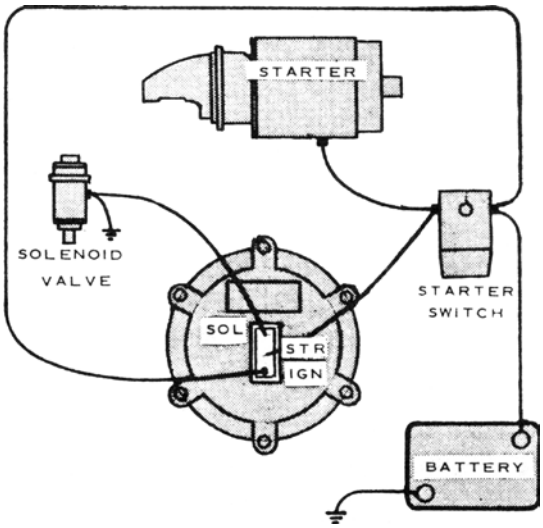
IN CANADA
REFER TO CAN/CGA PROPANE INSTALLATION CODES.

CNG INSTALLATIONS IN THE UNITED STATES
MUST RE DONE IN ACCORDANCE WITH FEDERAL STATE OR LOCAL LAW AND NATIONAL FIRE PROTECTION ASSOCIATION PAMPHLET #52, COMPRESSED NATURAL GAS (CNG) VEHICULAR FUEL SYSTEMS TO THE EXTENT THESE STANDARDS ARE NOT IN VIOLATION WITH FEDERAL, STATE OR LOCAL LAW.

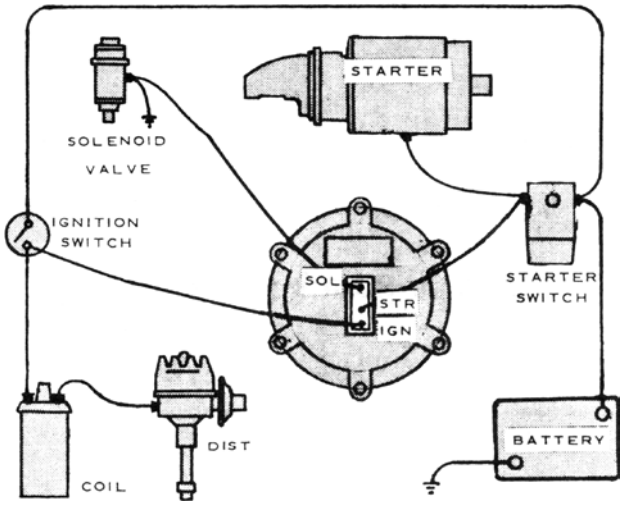
IN CANADA
REFER TO CAN/CGA CNG INSTALLATION CODES.

LPG AND/OR NATURAL GAS INSTALLATIONS ON STATIONARY ENGINES
MUST RE DONE IN ACCORDANCE WITH FEDERAL, STATE OR LOCAL LAW AND NATIONAL FIRE PROTECTION ASSOCIATION PAMPHLET #37, STATIONARY COMBUSTION ENGINES AND GAS TURBINE ENGINES, TO THE EXTENT THESE STANDARDS ARE NOT IN VIOLATION WITH FEDERAL, STATE OR LOCAL LAW. FAILURE TO ABIDE BY THE ABOVE WILL VOID ANY IMPCO WARRANTY ON THE PRODUCTS AND MAY CAUSE SERIES INJURY OR PROPERTY DAMAGE.

DUE TO THE INHERENT DANGER OF GASEOUS FUELS THE IMPCO PRODUCTS SHOULD NOT BE INSTALLED OR USED BY PERSONS NOT KNOWLEDGEABLE OF THE HAZARDS ASSOCIATED WITH THE USE OF GASEOUS FUELS.



Magneto Ignition



Battery Ignition

The Microswitch features an internal switch securely mounted inside the insulated terminal block. There are three screw type terminals on the terminal block.

The Microswitch can be used as a two (2) or three (3) wire switch. A 2-wire connection uses the outside terminals (SOL for solenoid and IGN for ignition—the STR or starter connection is omitted).

Installation: The Microswitch is ideal for use with IMPCO regulator models 120A, I00A, or the 60; the same vacuum line which operates the vacuum-lock in the regulator can also accommodate the switch. Use a street tee at the regulator and make a single vacuum connection.

Warning

Never short the Microswitch terminals to ground. The Microswitch is a precision unit and will not stand heavy surges of current which bypass the solenoid circuit.

For repair instructions, refer to the PPI (included with the 1501-L repair kit).

ELECTRICAL CONNECTIONS

1. Remove negative battery cable.
2. Install the Microswitch vacuum at any convenient source of manifold vacuum, away from the heat of the exhaust system.
3. Use 16-gauge automotive wire and insulated wire terminals (terminals included with Microswitch). To avoid crossing connections, connect one circuit at a time.
4. Connect "SOL" (Solenoid) terminal of the Microswitch to the electric solenoid valve or filter lock.
5. Connect "IGN" (Ignition) terminal of the Microswitch to the coil side terminal of the ignition switch. If there is no bypass resistor in the ignition circuit, this wire may be connected to the battery terminal of the ignition coil.
6. *Skip this step for a 2-wire installation*. Connect center “STR” (Starter) terminal of the Microswitch to the starter terminal on the starter switch. Engaging the starter will complete the circuit to solenoid valve only while the starter is energized..
7. Once the wires are connected, remove one of the screws (on the perimeter of the Microswitch at a convenient location and replace it with the longer screw and wire clamp provided. Run all wires through the clamp and tighten to avoid vibration of the wire at the thermals and extend the life of the wire.
8. Reconnect negative battery cable, start engine and test for normal operation.

STARTING THE ENGINE

2-wire installation: Start engine on a closed throttle or use a pumping action to allow the throttle to close momentarily to build up manifold vacuum (necessary to close the normally open circuit between the "IGN" and "SOL" connections). The solenoid valve will remain open as long as manifold vacuum is present.

3-wire installation: Normally, the engine will start at any throttle position. The normally closed circuit will automatically open to avoid current feedback once the engine starts.