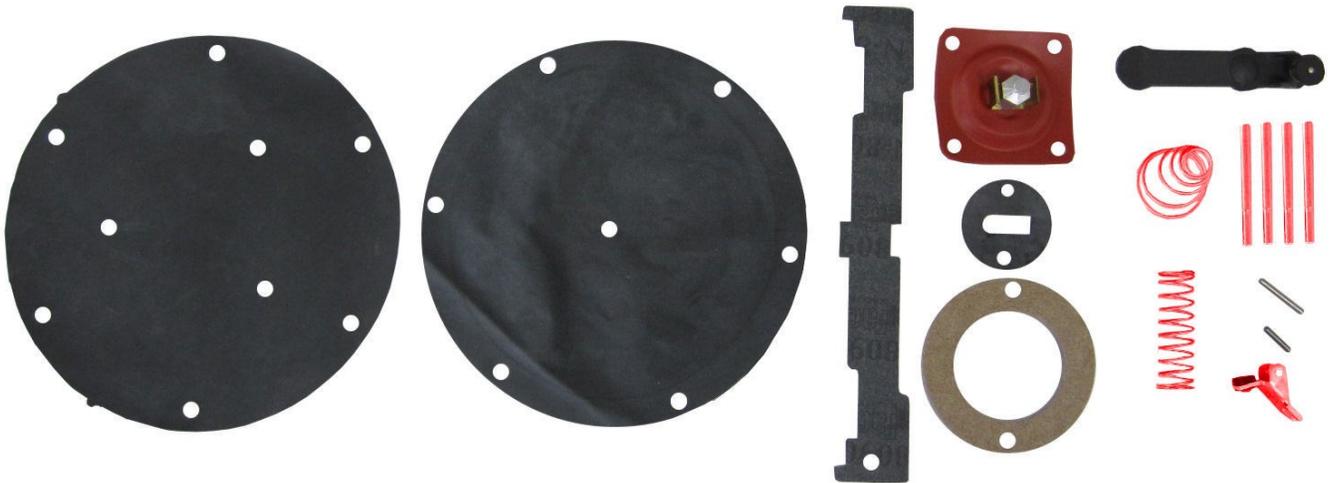


REPAIR KIT FOR CENTURY MODEL 1477-B (MODEL H) CONVERTER/REGULATOR

KIT P/N: 286-1301A



REBUILDING

Disassembly

- (1) Remove primer and front cover.
- (2) Remove secondary diaphragm, support plate, gasket, and secondary valve lever assembly.
- (3) Remove two screws holding inlet assembly and slide assembly from opening in side of primary body (Figure 39).

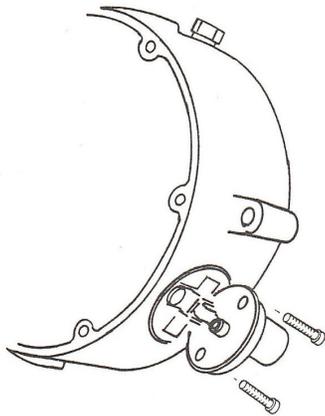


Figure 39. Disassembly

- (4) Remove square primary diaphragm cover and lift diaphragm assembly from primary cavity. This assembly is rarely defective and requires service only if primary pressure is incorrect or the converter is being completely rebuilt.

- (5) Remove nine back screws and lift back cover and gasket from converter body. Discard gasket.

- (6) Wash all parts in solvent and dry with compressed air. Although diaphragms and valve seats can normally be reused, it is advisable to discard them and install new parts when the converter is reassembled.

- (7) Inspect all parts for wear, damage or distortion. Discard any questionable items.

Assembly

- (1) Check back plate and back surface of converter with straight edge to determine if they are flat. Any variation in these surfaces will cause difficulty in preventing leaks around back gasket.

- (2) Should an uneven or warped condition exist, lap castings on a surface plate until condition is corrected. **DO NOT PROCEED UNTIL THIS WORK IS COMPLETED!** Severely warped parts will require machining or replacement.

(3) Lay converter body face down, place new gasket in position and insert aligning pins to hold it in place. Back gasket and plate cannot be installed incorrectly. Insert screws and turn down extremely tight. Start with center screws and then alternate from one side to the other.

NOTE

Do not use gasket sealing compound on any gasket or diaphragm.

Primary Diaphragm Assembly (Figure 40)

Place Diaphragm Assembly over opening into primary cavity, making sure that damper spring is in position to contact sides of opening when diaphragm is all the way down, and hold in position with four aligning pins. Place primary regulator spring with small coil end on top of diaphragm assembly and install cover.

Press Diaphragm Cover down and remove aligning pins ONE AT A TIME being sure to insert a screw in each hole before removing the next pin, see figure 41. Turn screws down to hold Cover and Diaphragm Assembly lightly against Gasket and Casting surface. Then tighten all four Diaphragm Cover screws alternately, evenly, and securely.

CAUTION

Failure to use aligning pins while screws are installed may result in screws cutting into Diaphragm.

Primary Inlet and Valve Assembly - Figure 42

(1) Install a new Valve Seat and secure in valve lever with hair pin cotter key.

(2) Place new Gasket over jet and against inside surface of inlet fitting. Mount lever and valve assembly in place and insert hinge pin.

(3) Turn body and assembly upside down.

(4) Slide completed inlet fitting and valve assembly into opening in side of primary body and secure with two screws.

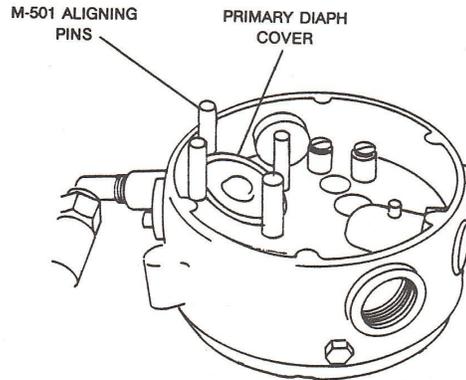


Figure 40. Primary Diaphragm Assembly

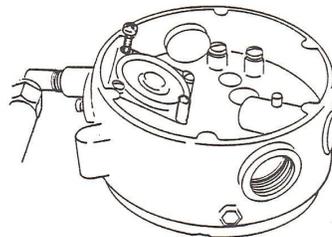


Figure 41. Aligning Pins

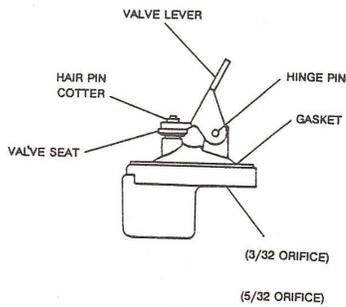


Figure 42. Primary Inlet and Valve Assembly

PRESSURE TEST - Figure 43

Attach compressed air hose to inlet fitting and place gauge over secondary valve orifice; turn on air supply and proceed as follows:

(1) Note pressure gauge reading. It should be 4-7 pounds with inlet pressure of 130-180 psi. If pressure does not fall within these limits, retrace previous operations to double-check work to this point. Pay particular attention to primary valve lever and pin. Wear or distortion at this point may be responsible. Extremely low pressure indicates spring has been left out.

(2) If pressure creeps upward, the primary valve is leaking and must be reworked. Foreign material, such as metallic chips, is most frequent cause of problem.

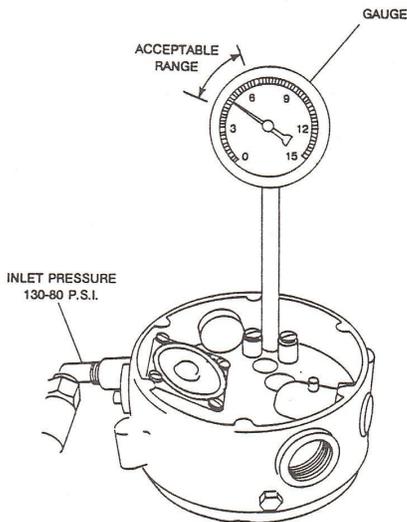


Figure 43. Pressure Test

(3) Check pressure under simulated operating conditions by lifting gauge slightly away from orifice, thus allowing air to escape. Pressure will drop slightly and return to original reading upon stopping the leak.

Secondary Valve and Lever Assembly - Figure 44

(1) Assemble new Valve Seat on valve lever using Pin. Insert pin through valve seat and lever insert. Press valve seat against flat surface and bend pin over sharply. **DO NOT HAMMER ON BENT PIN.** The seat is self-aligning and may not seal properly if held too rigidly against the valve lever.

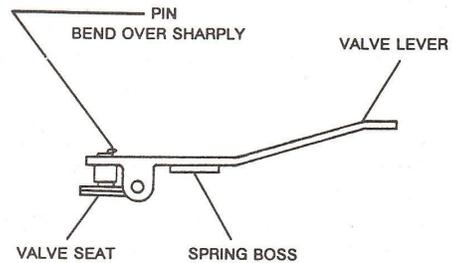


Figure 44. Secondary Valve and Lever Assembly

(2) Place secondary Spring in pocket in secondary chamber.

(3) Insert hinge pin in legs of lever and place lever and seat assembly in position and retain with two screws in mounting posts: Check position of spring to make sure it is located on lever boss.

(4) Open valve by hand and allow it to snap closed several times to align seat with orifice.

(5) Use lever Gauge to set lever height. (Figure 45) In case no Gauge is available, measure from a straight edge across face of casting to closest point tip of valve lever. Distance should be 5/16". (See Figure 36) Form valve lever to obtain correct setting.

Final Testing, Semi-Assembled Converter

(1) Reconnect air supply to converter inlet. Plug one water fitting opening and apply soap bubble to the remaining water outlet. Any continuous growth of the soap bubble indicates leakage through the back gasket and will require rework of its installation.

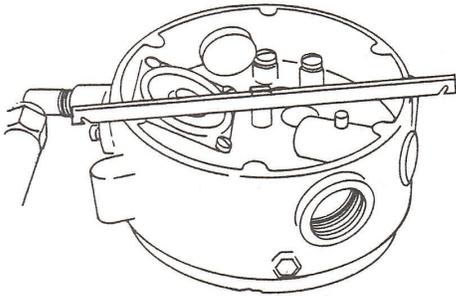


Figure 45. Lever Adjustment

(2) Test ALL gasket surfaces, edges, openings, etc. for leaks with soap solution or by immersing the entire unit in water. Any leaks must be corrected before proceeding further. Pay particular attention to secondary seat. If correctly installed, it will not leak.

Secondary Diaphragm Assembly - Figure 46

(1) Place small Diaphragm Plate on Screw with flange on plate toward screw head. Locate Diaphragm on screw with concave or dished side away from screw head. Set large Diaphragm Plate on screw with flange away from diaphragm and screw Diaphragm Button on exposed threads. Tighten securely.

(2) Insert aligning pins in Front Cover screw holes, using every other hole. Slide Gasket over pins with gasket ears over primary cover screws, slide on support plate. Mount secondary diaphragm assembly on pins with button toward converter lever. (Figure 47)

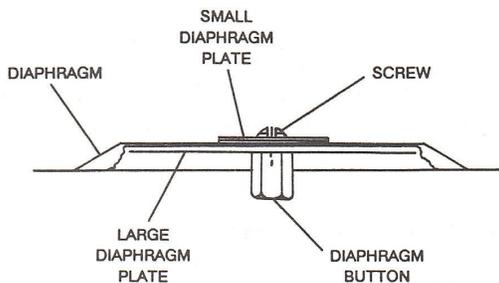


Figure 46. Secondary Diaphragm Assembly

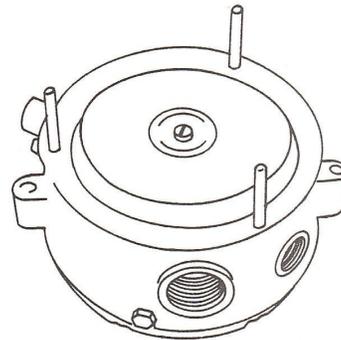


Figure 47. Aligning Pins

(3) Locate cover on aligning pins and install three front cover screws. Remove aligning pins and insert remaining screws. DO NOT TIGHTEN. (The front cover may be installed in any position, however, it should be placed so that Century is over the secondary valve.)

(4) Lift diaphragm up against cover by pulling with pliers through center hole in cover. Tighten all screws while lifting diaphragm. (Figure 48)

(5) Install primer and check for operation with 6 or 12 volt power source. Check for clearance between diaphragm assembly and primer plunger tip. If no clearance exists, recheck lever setting.

(6) Apply air pressure to inlet fitting and check for secondary valve leakage with soap bubble over vapor outlet. Depress primer manually or electrically to check for fuel flow. Volume need not be great but should be audible.

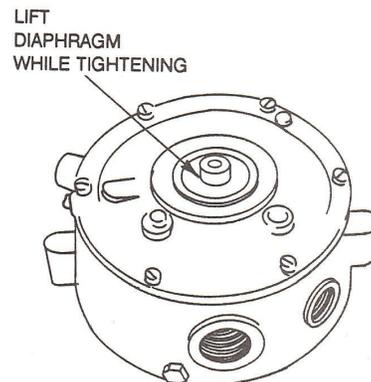


Figure 48. Diaphragm Positioning