



# ME-SKVA AND ME-SKVB UNIVERSAL LEAK CHECK AND INCHES W.C. REGULATOR TEST KIT INSTRUCTIONS

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THESE INSTRUCTIONS ARE FOR USE WITH ME-SKVA AND ME-SKVB UNIVERSAL LEAK CHECK KITS WHERE THERE IS A REQUIREMENT FOR A PROPANE SYSTEM LEAK CHECK OR VERIFICATION OF THE SECOND STAGE INCHES W.C. REGULATOR SET AND LOCKUP PRESSURES. IT IS NOT FOR PRESSURE TESTING NEW PROPANE SYSTEMS OR OTHER APPLICATIONS.

## !!! WARNING !!!

BEFORE THIS KIT IS USED, THE COMPANY AND PERSONNEL CONDUCTING A LEAK CHECK MUST BE AWARE OF THE REQUIREMENTS FOR A LEAK CHECK AND DEFINE THEIR COMPANY POLICIES AND PROCEDURES ACCORDINGLY SO THAT THE TEST IS CONDUCTED IN COMPLIANCE WITH NFPA 54, STATE AND LOCAL REQUIREMENTS. FAILURE TO FOLLOW APPLICABLE CODES, STANDARDS AND THE FOLLOWING INSTRUCTIONS MAY RESULT IN A FIRE, EXPLOSION, PERSONAL INJURY OR DEATH.



**WARNING:** This product contains a chemical known to the state of California to cause cancer and birth defects or other reproductive harm.

## !!! CAUTION !!!

- Only personnel trained in the proper procedures, codes, standards, and regulations of the LP Gas industry should use and service this equipment.
- Always wear suitable eye protection, gloves and protective clothing when operating or servicing LPG equipment.
- Regular inspection and maintenance is essential for safe operation.

## LEAK CHECK TESTING

**STEP A)** Close the tank service valve tightly before installing any pressure tap valves.

**STEP B)** The Universal Gauge assembly has a built-in single stage (250 psi inlet, 21" W.C. outlet) fixed low pressure regulator, allowing the pressure tap valve to be located in a high pressure test block installed between the tank valve outlet and the first stage regulator, in any pressure tap on a first stage, twin stage, or low pressure 11" W.C. second stage regulator or in a connection at a gas appliance.

**STEP C)** If a pressure regulator in the system has a pressure tap connection as given in **Step B**, remove one of these plugs and install an MEC pressure tap valve into this connection. **The most convenient and recommended connection is at the outlet of the first stage regulator or intermediate pressure tap of a twin stage regulator.** If the installation has older style regulators that do not have a pressure tap connection, as given above, proceed to **Step D**.

**STEP D)** If there is no pressure regulator in the system that has a pressure tap connection as given in **Step B**, remove the POL pigtail connection from the tank service valve. Install the high pressure test block between the service valve POL outlet and the pigtail.

**STEP E)** Attach the hose connection swivel fitting from the Universal Gauge assembly to the connection provided in **Step C** or **Step D**. **NOTE - HAND TIGHTEN ONLY, DO NOT USE A WRENCH ON THIS FITTING.**

**STEP F)** With the vent valve on the Universal Gauge assembly closed, open the tank service valve briefly then close it tightly. The pressure reading on the gauge assembly will increase to the pressure (20" to 24" W.C.) controlled by the built-in regulator when the pressure tap is upstream of the second stage regulator. With a pressure tap at the outlet or downstream of the second stage regulator the pressure reading indicates the outlet setting (11" W.C.) or lockup pressure of the second stage regulator.

**STEP G) – WARNING: Any release of propane/LP gas indoors must be limited to an unconfined space that is well ventilated and the procedure must be in compliance with NFPA 54.**

Open the vent valve on the Universal Gauge assembly until the pressure drops to **9 ± ½" W.C.** and then close the vent valve. **MAKE NOTE OF THIS INITIAL TEST PRESSURE.**

**STEP H) TESTING** – With the vent valve closed, observe the pressure reading on the Universal Gauge assembly **for a minimum of three minutes** for any increase or drop in initial test pressure from the **Step G**.

**IF THE PRESSURE ON THE TEST GAUGE DROPS AT ALL FROM THE INITIAL TEST PRESSURE OF STEP G,** it is an indication that there is a leak in the system. Be sure that the connections you have made, including the hose swivel connection, are secure and repeat **Steps F, G and H**.

**If the pressure drop is repeated, there is a leak in the system and service is required.**

**IF THE PRESSURE ON THE TEST GAUGE INCREASES AT ALL FROM THE INITIAL TEST PRESSURE OF STEP G** it can be due to the tank service valve not being closed tightly. Retighten the tank service valve and repeat **Steps G and H**.

**If the pressure increase is repeated, service is required.**

**Company policy will dictate if a pressure tap valve or test block will remain in the system after the test is completed. If it is not removed, place a cap on the valve.**

The tank service valve must remain closed until pilot lights or appliances are being relit. The customer should be notified of leak check test results and any action that may be required before attempting to relight pilot lights or appliances.



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### SECOND STAGE 11" W.C. REGULATOR SET PRESSURE AND LOCKUP PRESSURE TESTING

Low pressure 11" W.C. testing can be incorporated as part of the leak check procedure or when company policy dictates that testing of the second stage/low pressure regulator is required.

The Universal Gauge assembly has a built-in regulator that is factory set to 21" W.C. outlet pressure. **When connected to a pressure tap at the outlet of a low pressure, 11" W.C. second stage regulator, the built-in regulator remains open. This allows the gauge to accurately read the set or lockup pressures up to 21" W.C.**

When performing leak checks at high first stage and tank psi pressures, the built-in regulator protects the 35" W.C. pressure gauge from damage.

### REGULATOR SET AND LOCKUP PRESSURE

**STEP 1)** Close the tank service valve, turn all appliance control valves off including pilot lights and close appliance valves at the inlet to all gas appliances.

**STEP 2)** Install an MEC pressure tap valve in the outlet pressure tap on the low pressure regulator being tested or at a gas appliance inlet piping connection. When the pressure tap valve is installed at the outlet of a gas appliance valve, the appliance control valve(s) and the pilot light must remain in the off position and the appliance valve where the pressure tap valve is installed must be open.

**STEP 3)** Attach the hose connection swivel fitting from the Universal Gauge assembly onto the pressure tap valve installed in **STEP 2. NOTE - HAND TIGHTEN ONLY, DO NOT USE A WRENCH ON THIS FITTING.**

**STEP 4)** With the vent valve on the assembly in the closed position, **slowly open** the tank service valve. The pressure reading on the Universal Gauge assembly pressure gauge will increase to the lockup pressure of the low pressure regulator being tested. **The pressure should be within the regulator manufactures specifications.**

**STEP 5) – WARNING: Any release of propane/LP gas indoors must be limited to an unconfined space that is well ventilated and the procedure must be in compliance with NFPA 54.**

Open the vent valve on the Universal Gauge assembly 1/4 to 1/2 turns **to allow a minimum flow** from the vent valve.

**The pressure reading on the Universal Gauge assembly pressure gauge will drop to the set pressure of the regulator being tested. If it is less than 11" W.C. partially close the vent valve, but do not completely stop flow from the vent valve. Pressure should increase to an acceptable setting, normally not less than 10" W.C.**

**STEP 6)** Slowly close vent valve.

**The gauge is now reading the low pressure regulator lockup pressure.**

**STEP 7) COMPLETION OF TEST** - Remove Universal Gauge. Refer to company policy to determine if the tested regulator's pressure setting and lockup pressure are within allowable limits for continued service. If they are not acceptable, notify the customer of the test results and the company's recommendations.

**Company policy will dictate if a pressure tap valve will remain in the system after the test is completed. If it is not removed, place a cap on the valve.**

**Note:**

Like any mechanical device, the pressure gauge on the Universal Gauge assembly can be damaged and require recalibration. It is recommended that the gauge be periodically tested for accuracy and when the reading during testing of a second stage, low pressure regulators is suspect. The gauge has a set point adjustment for minor recalibration, if required.

The tank service valve must remain closed until pilot lights or appliances are being relit. The customer should be notified of leak check test results and any action that may be required before attempting to relight pilot lights or appliances.

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