# INSTRUCTIONS FOR CALIBRATING THE LANCER CARBONATION TESTER, KIT PN 82-2449

## <u>NOTE</u>

If needed, also see Lancer Instruction Sheet 28-0330/02, Carbonation Tester, Assembly and Parts Listing, PN 54-0007/01.

#### 1. PERMANENT MOUNTING AND CONNECTION OF THE CALIBRATOR

- **1.1** Determine a suitable location on the wall to mount the calibrator in the proximity of an air or CO<sub>2</sub> source. Included in the kit are drywall anchors and screws.
- **1.2** Position the calibrator on the wall so the gauge on the regulator is facing up and the calibrator is level. Mark the location of the four (4) mounting holes.
- **1.3** Drill four (4) pilot holes and install four (4) drywall anchors.
- **1.4** Position calibrator over the anchors and secure to the wall using four (4) washers and four (4) screws.
- **1.5** Connect end of hose assembly to an air or CO<sub>2</sub> source. This can be done with the 1/4 inch swivel nut and flare seal already attached to the hose assembly.

#### <u>NOTE</u>

Do not attach the yellow fitting on the hose assembly to the two (2) prong plug on the calibrator at this time.

## 2. CALIBRATING THE CARBONATION TESTER

- **2.1** Calibrating the Carbonation Tester Gauge
  - A. If the calibrator is not permanently mounted, remove it from the case and place it in a vertical position.
  - B. Securely screw the carbonation tester cap assembly with the gauge on the top of the calibrator tube so that the dial faces forward.
  - C. Using a screwdriver, turn the adjustment screw on the regulator counter-clockwise until it stops. This will ensure the initial pressure on the calibrator tube is zero (0) psi.
  - D. Connect the calibrator to an air or CO<sub>2</sub> source. This can be done with the hose assembly provided in the kit, or the two prong plug removed from a figal outlet can be used.
  - E. Slowly turn the adjustment screw on the regulator clockwise until the gauge on the calibrator reads five (5) psi.
  - F. Gently tap the gauge casing of the carbonation tester gauge to ensure that the indicator has not become stuck. The carbonation tester gauge should also read five (5) psi. If the gauge reads correctly, proceed to the next step. If it does not read correctly, remove the gauge cover by turning counter-clockwise. Using a screwdriver, turn the brass adjustment screw at the bottom of the gauge face counter-clockwise to increase the pressure reading or clockwise to decrease the pressure reading.
  - G. Repeat step 2.1.F at pressures of 10, 15, and 20 psi. Both gauges should read the same at all four pressures (5, 10, 15, and 20 psi). If they do not, the gauge must be replaced. *If at any time during the calibration procedure an adjustment is made, the entire procedure must be repeated beginning at five (5) psi.*
  - H. When the calibration is complete, slowly turn the adjustment screw on the regulator counter-clockwise until the adjustment screw stops.
  - I. Relieve the pressure from the calibrator tube by pressing the vent valve button on top of the cap

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assembly until the gauge reads zero (0) psi.

- J. Disconnect the yellow fitting of the hose assembly, or the two prong plug, from the calibrator. If a two prong plug from a figal is used, reconnect to the figal.
- K. Remove the carbonation tester gauge cap assembly.
- **2.2** Calibrating the Lancer Carbonation Thermometer
  - A. Remove the carbonation tester cap and fill the carbonation tester with ice mixed with water. Screw on the tester cap and allow the unit to cool for two to three (2-3) minutes, swirling gently.
  - B. Check the temperature on the thermometer. It should read 32°F. If the thermometer does not read correctly, it must be adjusted. To adjust the thermometer:
    - 1. Leave the ice and water inside the tester. Using a 9/16 inch wrench, turn the retaining nut under the thermometer one (1) turn counter-clockwise by inserting the wrench through the slot in the tester base.
    - 2. Carefully twist and pull out the thermometer from the tester base. Do not remove the thermometer completely from the tester base.
    - 3. Grasp the flats on the metal housing of the thermometer with an adjustable wrench in one hand and turn the dial with the other hand until the needle reads 32°F.
    - 4. Push the thermometer completely back into the tester base. Insert the wrench through the slot in the tester base and tighten the retaining nut one (1) turn clockwise.

# 3. CARE AND MAINTENANCE FOR THE CALIBRATOR GAUGE

- **3.1** If the calibrator is not permanently mounted and is not in use, it should be put back in the padded carrying case.
- **3.2** The calibrator gauge may need to be calibrated [the calibration of this gauge should be tested three (3) times per year]. Follow the steps below to remove and calibrate the gauge.
  - A. Remove two (2) screws and two (2) washers from the regulator mounting bracket using a Phillips screwdriver.

#### <u>NOTE</u>

Retain the screws and washers for reinstallation.

- B. Remove the gauge from the regulator body using an adjustable wrench.
- C. Calibrate the gauge using dead weight tester.
- D. Attach gauge to regulator body using an adjustable wrench. Make sure the gauge is facing forward.
- E. Attach the regulator to the test panel, using two (2) screws and two (2) washers removed earlier using a Phillips screwdriver.



Please refer to the Lancer web site (www.lancercorp.com) for information relating to Lancer Installation and Service Manuals, Instruction Sheets, Technical Bulletins, Service Bulletins, etc.