



FOR QUALIFIED INSTALLER ONLY. This basic Installation Sheet is an initial release. If a complete Operations Manual (for the unit being installed) is required or needed, please refer to the Lancer web site (lancercorp.com) for immediate access, or for your convenience, scan this QR code with a mobile device (app required) for immediate access. Contact Lancer Customer Service for assistance as required.

INTRODUCTION

- MODEL 100L 3.0 LEV®
- MODEL 100SF 3.0 LEV® SUREFILL
- MODEL 145P 4.5 LEV® PUSHBUTTON
- MODEL 100SSL 3.0 LEV® WITH SELF-SERVE LEVER
- MODEL 100PC 3.0 LEV® PORTION CONTROL
- MODEL 145SF 4.5 LEV® SUREFILL
- MODEL 100P 3.0 LEV® PUSHBUTTON
- MODEL 145SSL 4.5 LEV® WITH SELF-SERVE LEVER
- MODEL 145PC 4.5 LEV® PORTION CONTROL

SPECIFICATIONS

FLOW RATE:

- All Model 100 (3.0 Valve) valves are adjustable from 1.5 ounces/second (44.4 ml/sec) to 3.0 ounces/second (88.8 ml/sec) of finished drink.
- All Model 145 (4.5 Valve) valves are adjustable from 2.5 ounces/second (74.0 ml/sec) to 5.0 ounces/second (148.0 ml/sec) of finished drink.
- Restricted flow adjustment plug, maximum flow 2.0 ounces/second (59.2 ml/sec) in the Model 100 valves and 3.3 ounces/second (97.7 ml/sec) in the Model 145 valves.

FLOW CONTROLS:

Water and syrup flow controls are individually adjustable without removing valve cover. Syrup flow control operates with both sugar and diet syrups.

MOUNTING:

Mounts on the same hole center as the following valves with the same mounting screws.

Dole SEV	Cornelius SF1
Dole FFV	McCann Coca-Cola Valve
Smart Valve	

ELECTRICAL REQUIREMENT:

24 VAC, 50/60 Hz

SODA/WATER LEVER:

Manually operated and field convertible.

WATER AND SYRUP REQUIREMENTS:

MODEL 100 (3.0 Valves)

Flowing Pressures at Valve

	Minimum	Maximum
Water/Soda	40 PSIG (0.276 MPA)	110 PSIG (0.758 MPA)
Syrup (Sugar)	20 PSIG (0.138 MPA)	70 PSIG (0.483 MPA)
Syrup (Diet)	10 PSIG (0.070 MPA)	70 PSIG (0.483 MPA)

MODEL 145 (4.5 Valves)

Flowing Pressures at Valve

	Minimum	Maximum
Water/Soda	30 PSIG (0.207 MPA)	110 PSIG (0.758 MPA)
Syrup (Sugar)	15 PSIG (0.103 MPA)	80 PSIG (0.552 MPA)
Syrup (Diet)	10 PSIG (0.070 MPA)	80 PSIG (0.552 MPA)

1. INSTALLATION

1.1 RECEIVING

Each unit is completely tested under operating conditions and thoroughly inspected before shipment. At time of shipment, the carrier accepts the unit and any claim for damage must be made with the carrier. Upon receiving units from the delivering carrier, carefully inspect carton for visible indication(s) of damage. If damage exists, have carrier note same on bill of lading and file a claim with the carrier.



10011
14512

1.2 REMOVAL OF EXISTING VALVE

- A. Turn **OFF** carbonated water supply to dispenser to depressurize the system.
- B. Turn **OFF** all syrup supplies to dispenser.
- C. Operate each valve to ensure complete depressurization of water and syrup in the system.
- D. Remove existing valve and mounting block. Reuse the mounting block screws.

1.3 INSTALLATION OF VALVE



CAUTION IF DISPENSER IS CONNECTED TO ELECTRICAL POWER, THE UNIT MUST BE PROPERLY GROUNDED TO AVOID POSSIBLE FATAL ELECTRICAL SHOCK OR SERIOUS BODILY INJURIES.

PRECAUCIÓN SI DISTRIBUIDOR ESTÁ CONECTADA A LA CORRIENTE ELÉCTRICA, LA UNIDAD DEBE ESTAR DEBIDAMENTE TIERRA PARA EVITAR POSIBLES DESCARGAS ELÉCTRICAS FATAL O LESIONES GRAVES LESIONES.

ATTENTION SI DISTRIBUTEUR EST BRANCHÉE AU COURANT, L'APPAREIL DOIT ÊTRE CORRECTEMENT TERRE POUR ÉVITER UN CHOC ÉLECTRIQUE MORTEL POSSIBLE OU BLESSURES GRAVES BLESSURES.

- A. Slide I.D. panel up to expose cover mounting screw.
- B. Loosen cover mounting screw (**DO NOT REMOVE**) and remove cover.
- C. Turn both stems on mounting block to the **CLOSED** position.
- D. Lift up wire retainer and remove mounting block from valve.
- E. Replace the inlet water and syrup o-rings on dispenser valve fittings.
- F. Lubricate o-rings on the fittings and mounting block with water or an FDA-approved lubricant.
- G. If syrup-out light is furnished with valve, run light wires through mounting block and valve plate. Connect wiring to pressure switch in product line (24 VAC power supply required).
- H. Install mounting block to valve plate using four (4) mounting screws removed from existing mounting block.
- I. Install valve on mounting block. Push wire retainer down. This will lock valve to mounting block. (White stems must be in closed position.)
- J. Turn on carbonator water supply and syrup supply to dispenser.
- K. Turn both white stems on mounting block to the **OPEN** position. Top of stem will lock wire retainer in position.
- L. If electric version, reconnect to 24 VAC power supply.
- M. Operate the valve momentarily to ensure flow of carbonated water and syrup.

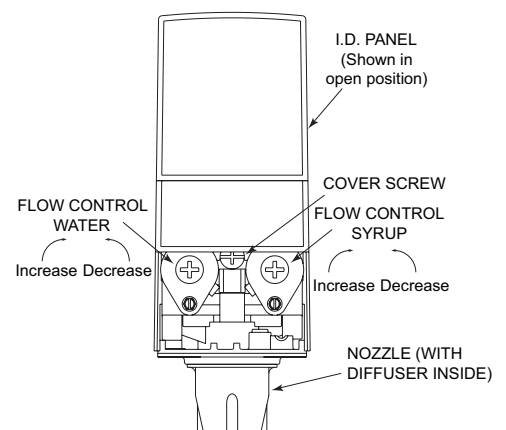
NOTE: Model 100 valves are factory preset for a flow rate of 3.0 ounces per second; an adjustment may be required. Model 145 valves are factory preset for a flow rate of 4.5 ounces per second; an adjustment may be required.

- N. Adjust water flow to correct flow rate (see following instructions).
- O. Adjust ratio (oBrix) to correct setting (see following instructions).
- P. Install cover on valve and tighten cover mounting screw.
- Q. Slide down I.D. panel.

1.4 ADJUSTING WATER FLOW

The water flow for the Model 100 may be adjusted from 1.25 oz/sec (37 ml/sec) to 2.50 oz/sec (74 ml/sec). The water flow for the Model 145 may be adjusted from 2.0 oz/sec (59.2 ml/sec) to 4.50 oz/sec (133.2 ml/sec). The restricted flow adjustment plug (Model 100) adjusts to a maximum flow of 2.0 oz/sec (59.2 ml/sec). The restricted flow adjustment plug (Model 145) adjusts to a maximum flow of 3.3 oz/sec (97.7 ml/sec).

- A. Slide up I.D. panel until flow control adjustments are exposed.
- B. Remove nozzle by twisting counter clockwise and pulling down.
- C. Remove diffuser by pulling down.
- D. Install Lancer syrup separator (yellow) (PN 54-0031 for Model 100 valves) or Lancer syrup separator (smoke) (PN 54-0201 for Model 145 valves) in place of the nozzle.
- E. Activate valve to fill separator syrup tube.
- F. Hold a Lancer oBrix cup under syrup separator. Dispense water and syrup into cup for two (2) seconds. Divide number of ounces (ml) of water in cup by two (2) to determine water flow rate per second.
- G. To obtain desired water flow rate, use a screwdriver to adjust water flow control (see Figure).



1.5 ADJUSTING WATER TO SYRUP oBRIX

For the Model 100, the syrup flow may be adjusted from 0.25 oz/sec (7.4 ml/sec) to 0.50 oz/sec (14.8 ml/sec). For the Model 145, the syrup flow may be adjusted from 0.50 oz/sec (14.8 ml/sec) to 0.90 oz/sec (26.6 ml/sec).

- A. Hold the Lancer oBrix cup under the syrup separator and activate valve. Check oBrix.
- B. To obtain desired oBrix, use screwdriver to adjust syrup flow control (see Figure on previous page).
- C. Remove syrup separator.
- D. Install diffuser and nozzle.
- E. Slide down I.D. panel.

1.6 INSTALLATION OF SODA LEVER

The soda lever may be field installed.

- A. Remove valve cover.
- B. Turn both stems on mounting block to **CLOSED** position.
- C. Disconnect electric wiring harness.
- D. Remove valve from mounting block.
- E. Locate bottom plate plug in bottom plate on left side of nozzle (if necessary).
- F. Pull out stainless steel pin and remove bottom plate plug.

NOTE: If valve does not have pin, push bottom of plug to snap it out of position.

- G. Remove nozzle by twisting counter clockwise and pulling down.
- H. Remove diffuser by pulling down.
- I. Hold cup lever back and lay soda lever across bottom of valve with small leg extending through hole. Twist soda lever slightly and bring to upright position. Soda lever will slide between the vertical supports.
- J. Release cup lever.
- K. Line up holes in supports and soda lever and install stainless steel pin.
- L. Install diffuser and nozzle.
- M. Install valve on mounting block and latch wire retainer.
- N. Reconnect electric wire harness.
- O. Turn both stems on mounting block to **OPEN** position.
- P. Push soda lever back and check for soda/water flow.
- Q. Install cover and tighten cover screw.
- R. Slide down I.D. panel.

1.7 REMOVAL AND INSTALLATION OF FRONT SODA/WATER LEVER (KIT PN 82-1458)

- A. Slide I.D. panel up to expose cover mounting screw.
- B. Loosen cover mounting screw (**DO NOT REMOVE**) and remove cover.
- C. Close stems on mounting block.
- D. Operate valve to check for complete shutoff of water and syrup.
- E. Lift up wire retainer and carefully remove valve from mounting block. Disconnect wire harness.
- F. Locate bottom plate plug or soda lever in bottom plate on left side of valve. For removal of either item, remove pin and retain for reinstallation.

NOTE: If valve does not have pin, push bottom of plug to snap it out of position.

- G. To remove existing soda lever, slide lever behind vertical supports. Carefully pull lever down, rotating it towards the back right corner of the bottom plate. Then slide lever out of the slot.
- H. To install the front soda/water lever, first position the lever so that the contact pad faces towards the rear of the valve.
 1. Insert the front soda/water lever through the bottom plate and rotate the lever to the left until the contact pad is facing forward and the extension is positioned over the paddle arm on the left.
 2. To install spring, press stud pin into hole on upper body and fit one end of spring into outer groove of stud pin. Fit other end of spring into hole on top of front soda/water lever. Install pin.
- I. Install diffuser and nozzle.
- J. Install valve on mounting block and latch wire retainer.
- K. Reconnect electric wire harness.
- L. Turn both stems on mounting block to **OPEN** position.
- M. Push soda lever back and check for soda/water flow.
- N. Attach appropriate label to push pad on front soda/water lever.
- O. Install cover and tighten cover screw.
- P. Slide down I.D. panel.

1.8 REMOVAL AND INSTALLATION OF FLOW CONTROLS

- A. Slide I.D. panel up to expose cover mounting screw.
- B. Loosen cover mounting screw (**DO NOT REMOVE**) and remove cover.
- C. Close stems on mounting block.
- D. Operate valve to check for complete shutoff of water and syrup.
- E. Remove top screw and loosen bottom screw. Remove retainer.
- F. Remove plug adjustment assembly by threading extractor tool (PN 52-1950) into the bonnet and pulling it out. This will expose the flow control.
- G. Lift up wire retainer and carefully remove valve from mounting block. If electric, disconnect wire harness.
- H. Tilt valve forward to remove spring and piston.

NOTE: If piston is going to be reused, use caution when handling.

- I. Replace valve to mounting block and push wire retainer down. This will provide a stable working condition.
- J. To remove sleeve, use flow control extractor tool (PN 52-1950).

- 1. Ensure rubber bushing is loose on handle.
- 2. Push rubber bushing into sleeve.
- 3. Turn clockwise to tighten bushing inside sleeve.

NOTE: This will allow sleeve to be removed or installed.

- 4. Turn counterclockwise to loosen bushing inside sleeve. This will allow tool to be removed from sleeve.
- K. To replace sleeve, place sleeve on flow control extractor tool and insert in upper body.
- L. Lubricate o-ring with water (or any FDA approved lubricant) and push sleeve to bottom.
- M. Reassemble spool, spring, plug adjustment assembly, retainer and screws
- N. Turn both shut offs on mounting block to the **OPEN** position.
- O. Replace cover and tighten mounting screw.
- P. Adjust water flow to correct flow rate.
- Q. Adjust oBrix to correct setting.
- R. Slide down I.D. panel.

2. CLEANING

2.1 DAILY CLEANING

- A. Nozzle and diffuser must be cleaned daily.
 - 1. Remove nozzle by twisting counter clockwise and pulling down.
 - 2. Remove diffuser by pulling down.
 - 3. Wash nozzle and diffuser with warm water. Ensure that cleaning solution is thoroughly rinsed from nozzle and diffuser. Residual solution will cause foaming and off taste in finished product.
 - 4. Reinstall diffuser and nozzle.

NOTE: Ensure compliance with the instructions of the dispenser manufacturer to properly clean and sanitize the nozzle and diffuser, and ensure no off-taste is present.

2.2 BI-WEEKLY SANITIZING

- A. Nozzle and diffuser must be sanitized bi-weekly. Comply with the instructions of the dispenser manufacturer to properly sanitize the nozzle and diffuser, and ensure no off-taste is present.

3. SYRUP BRUX CUP

05-0081	Soda Brix Cup	05-0170	Syrup Brix Cup 5.00 to 1
05-0083	Syrup Brix Cup 4.00 to 1	05-0086	Syrup Brix Cup 5.2 to 1
05-0084	Syrup Brix Cup 4.20 to 1	05-0087	Syrup Brix Cup 5.30 to 1
05-0085	Syrup Brix Cup 4.40 to 1	05-0088	Syrup Brix Cup 5.40 to 1
05-0171	Syrup Brix Cup 4.50 to 1	05-0089	Syrup Brix Cup 5.50 to 1
05-0169	Syrup Brix Cup 4.75 to 1	05-0090	Universal Split Cup

NOTES

INTENTIONALL LEFT BLANK

INTENTIONALL LEFT BLANK

LANCER[®]

Lancer Corp.

800-729-1500

Technical Support/Warranty: 800-729-1550

custserv@lancercorp.com

lancercorp.com