

LAFFERTY EQUIPMENT MFG., INC.

INSTALLATION / OPERATION INSTRUCTIONS

315, 517 and 1035 SANITIZERS

Requirements

40 – 100 PSI Water

1/2" I.D. Discharge Hose, 315 & 517

3/4" I.D. Discharge Hose, 1035

Water Temperature Range

Ambient – 140° F



OPTIONS

- *Backflow Preventer*
- *Dual Chemical Pick-up with Chemical Ball Valves (DU/CBV)**
- *1 Gallon Stainless Steel Jug Rack (round OR square)*
- *2 ½ Gallon Stainless Steel Jug Rack (inside dimensions 8 ½" x 10 ½")*
- *5 Gallon Stainless Steel Jug Rack (inside dimensions 12" x 12")*
- *Stainless Steel Hose Rack*

- Model # 973600, 315 Sanitizer
- * Model # 973602, 315DU/CBV Sanitizer
- Model # 973700, 517 Sanitizer
- * Model # 973702, 517DU/CBV Sanitizer
- Model # 973800, 1035 Sanitizer
- * Model # 973802, 1035DU/CBV Sanitizer (with nozzle only)
- Model # 973650, 315 Sanitizer Complete
- * Model # 973652, 315DU/CBV Sanitizer Complete
- Model # 973750, 517 Sanitizer Complete
- * Model # 973752, 517DU/CBV Sanitizer Complete
- Model # 973850, 1035 Sanitizer Complete
- * Model # 973852, 1035DU/CBV Sanitizer Complete (with 50' hose, ball valve, wand, and nozzle)

Ask about our 3-Way and 4-Way Multiple Pick-up Sanitizers and Portable Sanitizers

INSTALLATION AND OPERATION INSTRUCTIONS

315, 517 and 1035 SANITIZERS

IMPORTANT: SANITIZER SUPPLIED WITHOUT A BACKFLOW PREVENTER.

TO PREVENT POSSIBLE CHEMICAL BACK UP INTO THE WATER SYSTEM, COMPLY WITH LOCAL PLUMBING CODES AND INSTALL APPROPRIATE BACKFLOW PREVENTER

CAUTION: ALWAYS OBSERVE GOOD SAFETY HABITS. WEAR PROTECTIVE CLOTHING, GLOVES AND EYE WEAR. DIRECT DISCHARGE AWAY FROM YOURSELF AND OTHERS.

TO INSTALL *(See Parts Diagram, Facing Page)*

1. Mount the sanitizer to a suitable surface.
2. **Sanitizer supplied without a backflow preventer. To prevent possible chemical back up into the water system, comply with local plumbing codes and install appropriate backflow preventer.** Then connect your 40 – 100 PSI water supply to the sanitizer.
3. Connect the hose to the sanitizer and the wand assembly as shown in the diagram. **[Hose must be 1/2" I.D. for the 315 and 517 and 3/4" I.D. for the 1035. Use only the nozzle supplied with sanitizer.]**
4. *Stapled to these instructions, with a matching color-coded chart, are metering tips which control your chemical to water dilutions.* You will need to know the water pressure and the number of ounces of chemical needed per gallon of water to determine the correct tip color. *(See chemical label for manufacturer's recommendation.)*
 - A. Locate your water pressure in the chart. The number below it is your water flow rate in **gallons per minute**.
 - B. Multiply your **gallons per minute** by the number of **ounces of chemical needed per gallon** of water.
 - C. Match your answer to the *nearest* number in the tip selection chart below to determine the tip color. **[Tip selection chart is based on water-thin chemical. Thicker chemicals will require a larger metering tip. If selected metering tip does not produce desired chemical to water ratio, increase tip size for higher chemical concentration or decrease tip size for lower chemical concentration until desired results are achieved.]**

EXAMPLE OF METERING TIP SELECTION 517 Sanitizer at 60 PSI

- 60 PSI = 5.8 GPM
- 1 ounce of chemical per 4 gallons of water
- $5.8 \times .25 = 1.45$
- $1.45 \cong 1.4$ for thin chemical (Bright Purple tip) (thicker chemicals will require a larger tip)

- D. Open cover if necessary. Install selected metering tip into (each) solution check valve. Next, push the chemical tube over the check valve and close cover. Immerse the chemical strainer into your chemical concentrate.

TO OPERATE

1. Close the discharge ball valve and open the water ball valve. Move to the area to be sanitized, open the discharge ball valve and begin application.
2. When application is completed, close the discharge ball valve. Return to sanitizer and close the water ball valve. Re-open the discharge ball valve to relieve pressure in hose. Store hose on optional hose rack.
3. If final rinse is required, rinse the work surface.

CAUTION: SHUT DOWN AFTER EACH USE! NEVER LEAVE SANITIZER UNATTENDED WITHOUT CLOSING THE WATER VALVE AND RELIEVING PRESSURE IN THE HOSE.

SANITIZER FLOW CHART IN GALLONS PER MINUTE (GPM – AVERAGE)

MODEL	NOZZLE SIZE*	HOSE SIZE	40 PSI	60 PSI	80 PSI	100 PSI
315	40100*	1/2" I.D.	3.75 GPM	4.40 GPM	5.10 GPM	6.20 GPM
517	40150*	1/2" I.D.	4.90 GPM	5.80 GPM	6.50 GPM	7.40 GPM
1035	50250*	3/4" I.D.	8.60 GPM	9.90 GPM	11.10 GPM	12.30 GPM

**For proper operation, nozzle size must correspond with injector size.*

The number under each color in the chart below represents the average ounces of water-thin chemical which will pass through the tip per minute.

METERING TIP SELECTION IN OUNCES PER MINUTE (AVERAGE)

COLOR	Brown	Clear	Bright Purple	White	Pink	Corn Yellow	Dark Green	Orange	Gray	Light Green	Medium Green	Clear Pink	Yellow Green	Burgundy	Pale Pink	Light Blue	Dark Purple	Navy Blue	Clear Aqua	Black
Thin Chemical	0.84	1.16	1.4	2.0	2.7	3.4	4.0	5.3	6.1	7.0	8.5	9.2	11.2	12.5	12.9	14.2	17.6	21.4	30.2	40.4

TROUBLESHOOTING GUIDE

for

315, 517 and 1035 SANITIZERS

PREVENTIVE MAINTENANCE: When the sanitizer will be out of service for extended periods, the risk of residual chemical build-up is increased. To prevent build-up, remove chemical tube from chemical concentrate and place it in warm water. Completely open the water supply valve for 30 seconds to flush. Check and/or clean chemical strainer; replace if missing.

PROBLEMS WITH SANITIZER	POSSIBLE CAUSE / SOLUTION												
	1	2	3	4	5	6	7	8	9	10	11	12	13
A) Sanitizer will not draw chemical.	•	•	•	•	•	•	•	•	•	•			•
B) Water flowing into chemical container.					•								
C) Chemical concentration too rich.											•		
D) Chemical concentration too lean.												•	

POSSIBLE CAUSE / SOLUTION

- Water pressure and/or volume too low or temperature too high** – Increase water volume and ensure water supply line is at least 3/4". Decrease water temperature.
- Hose too long or wrong size or kinked** – Models 315 and 517 require a 1/2" I.D. hose; model 1035 requires a 3/4" I.D. hose. For pressures under 65 PSI, maximum recommended hose length is 50'. For pressures over 65 PSI, 75' is the maximum. Straighten the hose.
- Nozzle size too small** – Model 315 must be a 40100, 517 must be a 40150, and 1035 must be a 50250 nozzle.
- Water inlet and discharge ball valves not completely open** – Completely open the water and discharge ball valves.
- Solution check valve clogged or failed** – Clean or replace solution check valve.
- Water inlet screen clogged** – Disconnect sanitizer from water source. Clean or replace screen.
- Chemical tube not immersed in chemical or chemical depleted** – Immerse tube or replenish.
- Chemical strainer or metering tip blocked** – Clean or replace chemical strainer and/or tip.
- Chemical tube stretched out where tube slides over check valve or pin hole/cut in chemical tube** – Cut approximately 1/2" off end of tube or replace tube.
- Vacuum leak in chemical pick-up assembly** – Tighten the connection(s).
- Chemical to water ratio too high** – Install smaller tip.
- Chemical to water ratio too low** – Install larger tip.
- Water scale or chemical build-up may have formed in the injector body causing poor pick-up** – To descale, carefully remove body and soak *entire* injector body in descaling acid.

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