

IF YOU HAVE QUESTIONS OR CONCERNS, OR ARE MISSING PARTS...
DO NOT RETURN SPRAYER TO THE STORE!
PLEASE CALL OUR CONSUMER HOTLINE AT 1-800-253-4642
Year-round Mon.-Fri., 8 a.m. - 7 p.m. ET
March 1 – August 31 Sat. and Sun. 10:00 a.m. to 4:00 p.m. ET
Or write us at: Root-Lowell Manufacturing Co. • 1000 Foreman Rd.
P.O. Box 289 • Lowell, MI 49331
Visit us on the Internet at: <http://www.rlflomaster.com>
e-mail: service@rlflomaster.com

RL FLOMASTER®

OPERATION AND SERVICE INSTRUCTIONS LAWN & GARDEN POLYMER SPRAYERS with Funnel Top Tank Openings

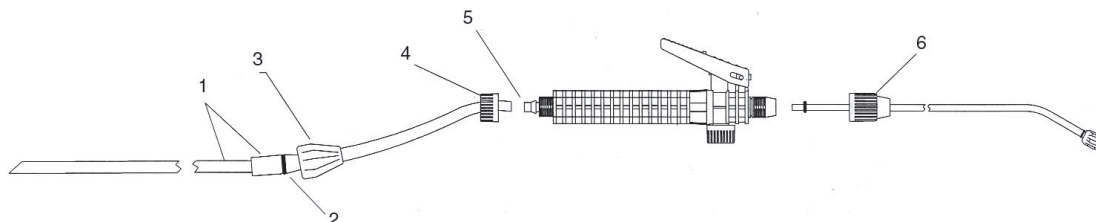
MODELS: 1401, 1401HD, 1402, 1403, 1996, 2301, 2302, 2302F, 2303, 2401, 2402, 9001, 1001, 1002, 1003, 1025HD, 1101, 1102, 1102D, 1125D, 7015, 1215

WARNING!!! THIS PRODUCT IS DESIGNED TO SPRAY CHEMICALS THAT MAY BE HARMFUL AND COULD CAUSE SERIOUS PERSONAL INJURY IF INHALED OR BROUGHT INTO CONTACT WITH THE USER. FAILURE TO READ AND FOLLOW OPERATING INSTRUCTIONS BEFORE USE AND/OR MISUSE OF THIS PRODUCT COULD RESULT IN EXPLOSIVE FAILURE WITH MAJOR INJURIES.

- **ALWAYS water** test unit before using.
- **ALWAYS** wear protective clothing, eye protection, and gloves.
- **ALWAYS READ AND FOLLOW** label instructions for chemicals to be applied.
- **AFTER USE** - release pressure, empty, and clean the sprayer.
- **RELEASE** pressure in sprayer before servicing.
- **DO NOT** alter sprayer.
- **DO NOT** spray gasoline or other flammables.
- **DO NOT** store liquids in tank.
- **DO NOT** leave sprayer in the sun.

INITIAL ASSEMBLY INSTRUCTIONS:

1. Be sure to first insert pink siphon tube into hose insert otherwise sprayer will not operate.
2. Lubricate (with grease or petroleum jelly), the o-ring on the hose insert and slide into tank until fully seated.
3. Slide tank nut to threaded connection and securely screw onto tank.
4. Attach the flow control to the hose by unscrewing the flow control nut from the back of the flow control. Slide it directly onto the end of the hose.
5. Push the hose onto the back of the flow control all the way past the barb and up to the threads and screw together. Hand tighten only.
6. Push the extension rod into the flow control until it stops. Slide extension nut o-ring to the flow control and screw together. Hand tighten only.



→ OPERATING INSTRUCTIONS:

1. Remove the pump from the tank by turning counter clockwise.
2. Prepare spray solution following instructions provided with the chemicals. For best results, mix in a separate container and strain through cloth sieve when pouring into tank. Do not fill tank above the maximum fill marker.
3. Close tank by inserting pump assembly through opening. Turn clockwise until pump is sealed tightly into tank.
4. When the sprayer is filled, 20-30 strokes on the pump should supply enough pressure for spraying. More strokes will be needed if tank is only partially filled. As the fluid level goes down, more strokes may be needed. To work the pump, unlock pump handle from pump cap by turning counter clockwise. Lock the handle again by turning clockwise.

5. To start spraying, squeeze the flow control lever. Release pressure from the lever and the spray will stop. To spray continuously, squeeze the lever, and slide the lock forward. See Figure.



6. If your sprayer has an adjustable cone nozzle, screw it in clockwise for a fine mist, and counter clockwise for a coarse stream. Flat fan nozzles are not adjustable.
7. To depressurize the tank, turn the tank upside down. Squeeze the flow control lever until all air pressure is gone. If your sprayer has a pressure relief valve, pull up on the valve stem.

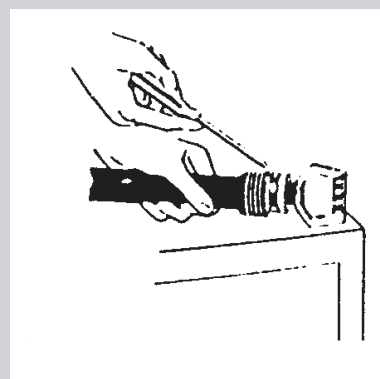
WARNING!!! To prevent ejected pump assembly and/or solution from striking and injuring you, never stand with face or body over the top of the tank when pumping or loosening pump.

8. Empty any remaining solution into a proper storage container or disposal container. Do not store chemicals in the tank. If the chemical is stored in the tank, it can clog the system as it dries and can promote corrosion.
9. Clean the sprayer after each use to prolong its life. After using water-based products, rinse thoroughly with water, being sure to flush out hose and flow control. After spraying solvent or oil-based products, follow chemical manufacturer's recommended cleaning procedure.
10. To store the sprayer, hang the tank upside down with the pump removed and the flow control locked "on". This allows for proper drainage and drying.
11. Check for worn or damaged parts frequently.

➔ **MAINTENANCE AND DISASSEMBLY:**

To keep the pump working smoothly and efficiently, the plunger u-cup seal needs to be lubricated often. Disassemble pump, according to the instructions below, and apply grease or petroleum jelly around the outside of the plunger cup. Note: Your sprayer was lubricated at the time of manufacture.

To disassemble pump, lay pump down on table. With a flat blade screwdriver, push in on the tabs on each side of the pump and pry down. Pull up on the handle and the plunger assembly should come out of the pump cylinder. To reassemble, insert plunger assembly into cylinder and push the tabs back into place. See Figure.



➔ **TROUBLESHOOTING:** Always depressurize the sprayer, remove chemical solution, and clean the sprayer before making repairs. Refer to the parts diagram for part numbers and names. Replacement parts may be purchased at most RL **FLO-MASTER dealers**, or they can be ordered from our Consumer Service Hotline at **1-800-253-4642**.

PROBLEM: Pump works hard or does not pressurize tank.

CAUSE: Plunger cup or plunger o-ring either not lubricated or damaged.

SOLUTION: Apply petroleum jelly around outside of plunger cup or plunger o-ring. Check for cracks or other damage and replace if necessary.

PROBLEM: Spray solution backs up through pump cylinder.

CAUSE: Check valve on bottom of pump cylinder prevented from sealing by dirt, residue, or damage.

SOLUTION: Remove pumps cylinder and examine check valve. Clean if dirty. Replace if damaged.

PROBLEM: Hose leaks at tank connection.

CAUSE: (1) Hose/tank screw connector loose OR (2) Hose damaged.

SOLUTION: (1) Tighten screw connector - hand tighten only. OR (2) Cut off damaged section of hose and reassemble with gear clamp, or replace with new hose/flow control assembly.

PROBLEM: Flow control leaks.

CAUSE: (1) Extension o-ring prevented from sealing by dirt or damage OR (2) Extension nut not screwed in all the way on flow control.

SOLUTION: (1) Clean and examine o-ring, replace if damaged OR (2) Push extension into flow control until it is fully seated into place. Then screw extension nut into flow control. Hand tighten only.

PROBLEM: Bad spray pattern or low spray volume.

CAUSE: Extension nozzle clogged with dirt or damaged.

SOLUTION: Remove nozzle and clean. Remove extension and clean. If extension cannot be unclogged, replace it.

PROBLEM: Nozzle leaks when flow control is closed.

CAUSE: (1) Extension o-ring prevented from sealing by dirt or damage. OR (2) Nozzle is worn.

SOLUTION: (1) Clean and examine o-ring, replace if damaged. OR (2) Replace nozzle cap.

PROBLEM: Leak at tank opening.

CAUSE: (1) Pump cylinder not sealed tightly into tank OR (2) Damaged cylinder gasket or o-ring.

SOLUTION: (1) Apply grease or petroleum jelly to cylinder gasket. OR (2) Thoroughly clean cylinder gasket or o-ring and surrounding area then apply grease or petroleum jelly to cylinder gasket. OR (3) Replace with new gasket or o-ring.

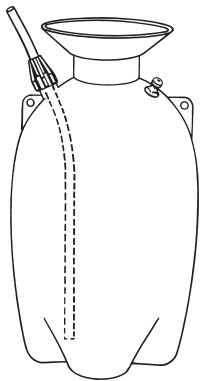
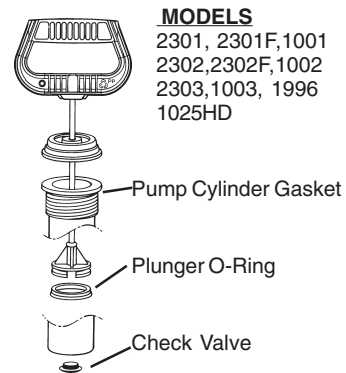
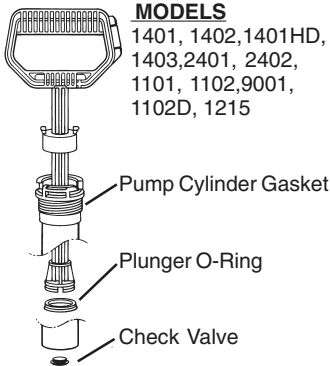
PROBLEM: Tank leaks around or through pressure release valve (does not apply to all models).

CAUSE: (1) Valve prevented from closing properly by dirt or residue. OR (2) Valve assembly not screwed in completely. OR (3) Valve gasket prevented from sealing by residue, dirt, or damage.

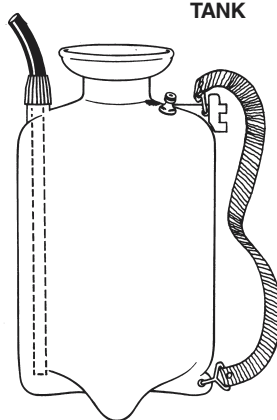
SOLUTION: (1) Pull up on valve stem several times, allowing it to snap back into place. OR (2) Screw in valve assembly tightly. OR (3) Unscrew valve from tank and examine the gasket. Clean if dirty, replace if damaged.

REPAIR PARTS

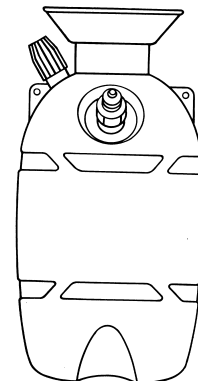
PUMP ASSEMBLY



MODELS
1401, 1402
1402HD, 1403
2401, 2402,
9001, 1215

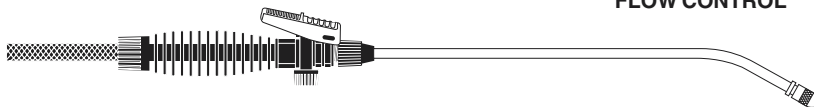


MODELS
2301, 2301F
2302, 2302F
2303, 2303F
1996

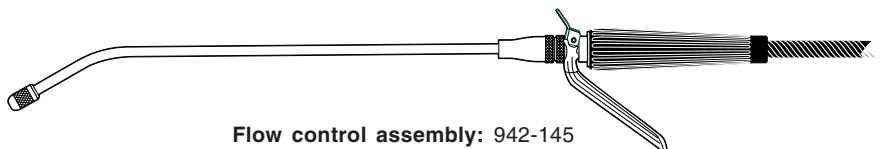


MODELS
1001, 1101
1002, 1102
1003, 1102D
1025HD

FLOW CONTROL



Flow control assembly: 1913, 1914



Flow control assembly: 942-145

DESCRIPTION	2302F	1001, 2301,1002, 2302,1003, 2303 1996	1401, 1401HD, 1402, 1403,2401, 2402,9001,7015	1101 1102 1102D	1025HD	1125D
Pump Assembly	942-802	942-802	942-110	942-110	942-812	942-103
Soft Goods Kit (replacement seals, gaskets, o-rings, etc.)	1910RG	1910RG	1910RG	1910RG	1910FS	1910FS
Flow control, hose, extension assembly	942-145	1913	1914	1913	1913PB	1913PB
Strap (not supplied on 1 and 2 gallon units)	955-020	955-020	955-020	955-020	955-020	955-020
Pressure Relief Valve (only on some models)	952-562	952-562	n/a	n/a	952-562	925-562
Siphon Tube	956-392	956-392	956-392	956-392	956-392	956-392
Nozzle Cap Kit	942-111	942-111	942-111	942-111	942-111	942-111

LIMITED WARRANTY

Root-Lowell Manufacturing Co. warrants to the original purchaser only that this product will continue to function as intended if used in accordance with operating instructions (under NORMAL CONSUMER USE) for the time period as specified for model numbers listed below: If the product fails to function as intended—DO NOT RETURN IT TO THE STORE—call **our CONSUMER SERVICE HOTLINE AT 1-800-253-4642 (toll free) for fast service.** We will, at our option, repair or replace any non-functioning parts without charge (shipping and handling charges will apply.) Root-Lowell Manufacturing Co. shall have the option of requiring the return of the non-functioning product to the address listed below together with the proof of purchase to establish a claim under this warranty. This warranty does not apply to damage resulting from accident, misuse, neglect, alterations, operation not in accordance with instructions, commercial use, or normal wear of o-rings or seals.

Model Number

1401HD, 7015, 9001, 1215
1101, 1102, 1102D, 1401, 1402, 1403
2301, 2302, 2303, 1001, 1002, 1003, 1996, 1125D,
2401, 2402, 1025HD

Warranty Period

1 Year Limited
3 Year Limited
5 Year Limited

ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR CONSUMER USE, ARE LIMITED TO THE DURATION SPECIFIED ABOVE. ROOT-LOWELL MANUFACTURING CO.'S LIABILITY IS LIMITED SOLELY TO THE REPAIR OR REPLACEMENT OF THE NON-FUNCTIONING PRODUCT OR PART. ROOT-LOWELL MANUFACTURING CO. EXCLUDES LIABILITY UNDER THIS WARRANTY FOR ANY AND ALL INCIDENTAL AND CONSEQUENTIAL LOSS OR DAMAGE.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

IF YOU HAVE QUESTIONS OR CONCERNS, PLEASE CALL OUR **CONSUMER SERVICE HOTLINE AT 1-800-253-4642** (Mon. through Fri., 8:00 a.m. to 7:00 p.m. EST) or **WRITE:** ROOT-LOWELL MANUFACTURING CO. • ATTN: CONSUMER SERVICE • 1000 FOREMAN ROAD • P. O. Box 289 • LOWELL, MICHIGAN 49331-0289.

HELP PROTECT THE ENVIRONMENT. PLEASE USE CHEMICALS CAREFULLY, ACCORDING TO CHEMICAL MANUFACTURER'S GUIDELINES, AND ALWAYS DISPOSE OF THEM PROPERLY.