

# **INSTRUCTION MANUAL**

## MAN190545 REV A 23/4/2018

MODELS: 190545, 190546, 190548, 190549 5L, 8L PRO GRADE HAND SPRAYER



### SILVAN AUSTRALIA PTY. LTD. ABN 48 099 851 144

VICTORIA (HEAD OFFICE)

**NEW ZEALAND** 

Telephone: +61 (03) 9215 2700

Telephone: +64 (07) 8496 030

www.silvan.com.au

www.silvannz.co.nz

FOR SERVICE SUPPORT PH 1300745826 (AUST) OR 0508 745826 (N.Z)

info@silvanaust.com

# Safety



# **AWARNINGS**

- This sprayer is designed and manufactured solely for the purpose of applying agricultural chemicals. Under no circumstances may it be used for any other purpose.
- Read owner's manual completely before operating this sprayer.
- Test the sprayer with water before using chemicals
- Before using chemicals refer to the chemical manufacturer's label and safety instructions for safe handling procedures and recommended personal protective clothing and safety equipment.
- Never use flammable liquids, caustics, acids, or hot water in this tank.
- Do not use sprayer near open flame or anything that could cause ignition of the spray.
- Do not leave sprayer in the sun when not in use.
- Spray when the air is calm to prevent drift of chemicals. Do not spray in windy conditions.
- Always inspect hose and all the hose connections before each use. A damaged hose, or loose
  hose connection can result in unintended exposure to the pressurised chemical, resulting in
  serious injury or property damage.
- Do not lift or carry sprayer by the hose, shut-off valve, or wand extension. Carry by the handle only.
- Do not pressurise with any mechanical device such as an air compressor, since this can create a dangerous pressure level and bursting of parts resulting in serious injury. Only use original pump.
- Do not store chemicals in this tank.
- Always release pressure when sprayer is not in use and before performing any maintenance.
- Clean and rinse sprayer thoroughly after each use and before and maintenance.
- Never attempt to alter sprayer from original condition.
- Exercise care to ensure proper stability when carrying or operating in hilly or uneven terrain, particularly if the ground is wet or loose. Wear non-slip shoes
- Keep the sprayer and all chemicals out of the reach of children.

If you experience problems or have questions in Australia, please contact our toll-free Customer Service Centre at 1300 745826, or email: info@silvanaust.com, or access online at: www.silvan.com.au

In New Zealand phone 0508 745826 or email: infonz@silvanaust.com



### **Assembly**

#### **Assemble Hose to Tank**

IMPORTANT: Do not attempt to heat or alter hose, hose nut, or barb prior to assembly.

- 1. Align hose barb tabs, push hose barb into tank until it stops (See Figure A).
- 2.Slide hose nut into place and turn clockwise to tighten. (See Figure B).

NOTE: Do not use tools to tighten hose nut.

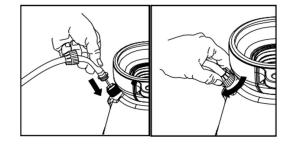
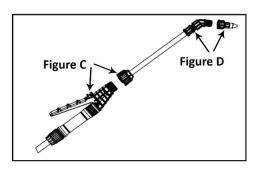


Figure A

Figure B

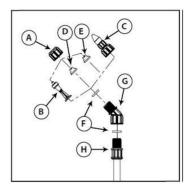
#### Assemble Extension, Shut-Off and Nozzle

- 1.Install the extension onto the shut-off assembly and tighten the nut securely. (See Figure C)
- 2.Install selected nozzle onto the end of the extension and tighten securely. (See Figure D)



#### **SELECT USING NOZZLE CHART BELOW**

- A. Cap Nut
- B. Foaming Nozzle
- C. Adjustable Cone Nozzle
- D. Red High-Volume Fan Nozzle
- E. Yellow Low-Volume Fan Nozzle
- F. Flat Seal
- G. Adapter
- H. Extension



#### ADJUSTABLE CONE USES

- •Spot spraying in or around flower beds, trees, and shrubs.
- Edging along fences, driveways, and walkways.
- Preparing garden beds for planting of ornamentals and vegetables.



#### FOAMING NOZZLE USES

- •Spot spraying in flower beds, walkways, driveways, and patios, around trees and shrubs.
- Edging along fences, driveways and walkways.
- ·Reduces drift

YELLOW LOW VOLUME FAN NOZZLE USES

#### RED HIGH VOLUME FAN NOZZLE USES



- · Lawn replacement. Kill lawn and weeds before planting a new lawn.
- Preparing large areas for planting of ornamental and vegetable gardens.



•For precision spraying in confined areas such as gardens and flower beds.

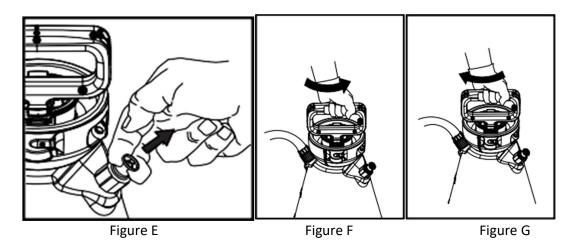


### **Operation**

#### **Filling**

#### IMPORTANT: Always make sure the pressure is released from the tank before filling or servicing.

- 1. Pull up on the knob of the pressure release valve until all the pressure is released from the tank. (See Figure E.)
- 2. Turn the pump handle counterclockwise to remove the pump (See Figure F).
- 3.Fill the tank to the desired level. See fill markings on side of tank. (Always refer to chemical manufacturer for proper mixture).
- 4.Install the pump into the tank opening and turn clockwise until tightly sealed against the tank (See Figure G).



#### **Pressurising**

- 1. Make sure spraygun shut-off lock is not on. (If shut-off lock is on while pressurising, the unit will immediately start spraying).
- 2. Push down on the handle and turn counter-clockwise to unlock the handle (See Figure-1H).
- 3. Pressurise the sprayer by pumping the handle in a smooth up and down motion (See Figure-2H).
- 4. Push down on the handle and turn clockwise to lock the handle into the pump (See Figure-3H).

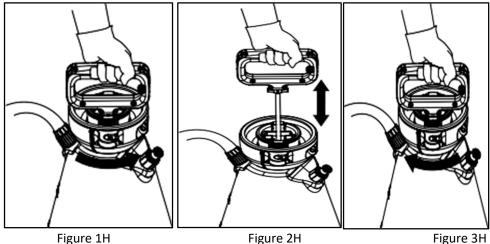


Figure 3H



#### **Spraying and Locking**

- 1. Direct nozzle away from you and squeeze shutoff lever to begin spraying.
- 2.For continuous spraying, squeeze lever and rotate lock (See Figure J).
- 3.Unlock if needed and release shut-off lever to stop spraying.
- 4. Turn the nozzle tip to adjust the spray pattern.

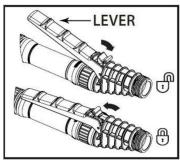


Figure J

#### **Finish**

- 1. Depressurise the tank via the pressure release valve as described in Filling Operation section.
- 2. Turn the pump handle counter-clockwise to remove the pump.
- 3. Empty any remaining liquid according to the product disposal directions.
- 4. Follow the Cleaning instructions.

#### **Cleaning**

- 1. Remove the pump as described in the Finish section.
- 2. Fill the tank with clean tap water. Replace the pump and tighten securely.
- 3. Agitate the tank to rinse the chemical from the tank wall and pump.
- 4. Remove the pump and empty the contents into gravel or bare soil.
- 5. Refill the tank with clean tap water.
- 6. Make sure the pump is free of dirt or debris and reinstall into the tank. Tighten securely.
- 7. Pressurise the tank as described in the Pressurising section.
- 8. Direct the nozzle away from you and activate the shut-off for at least 30 seconds to clean the hose and shut-off.
- 9. Release pressure as described in the Release Tank Pressure section.
- 10. Remove the pump and empty the contents into gravel or bare soil.
- 11. Repeat steps 5 10 until thoroughly cleaned.

#### **Sprayer Storage**

- 1.Do not store or leave any solution in the tank after use.
- 3. Store in dry location out of direct sunlight.
- 4. Keep the sprayer and all chemicals out of the reach of children.

#### Maintenance

#### **Pump Lubrication**

Pump should be periodically oiled by applying 10 to 12 drops of light oil down the pump rod through the opening in the pump cap as shown.





#### Pump Disassembly & Reassembly

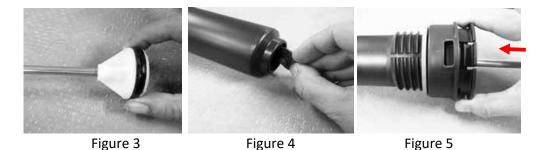
NOTE: Remove pump from tank prior to disassembly.

- 1.Inspect gasket. If worn or damaged, remove and replace. (See Figure 1)
- 2.To remove pump cap from pump barrel, squeeze the tabs on the cap and pull away from barrel. (See Figure 2)



Figure 1 Figure 2

- 3. Inspect o-ring. If worn or damaged, remove and replace. Lubricate o-ring with petroleum jelly. (See Figure 3)
- 4.Inspect check valve in bottom of barrel. If worn or damaged, remove and replace by pressing into hole in bottom of barrel. (See Figure 4)
- 5.Insert the pump handle assembly into the barrel. Align the tabs of the pump cap with the rectangle cutouts on the barrel. Push cap into place until the cap snaps securely into position. (See Figure 5)



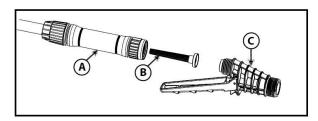
#### **Nozzle Maintenance**

- 1.If nozzle clogs, remove and disassemble the nozzle assembly.
- 2. Clean the openings of any obstructions and reassemble.

#### **Shut-off Maintenance**

### Always depressurise sprayer before maintenance.

- 1. Unscrew the handle from the shut-off assembly.
- 2. Remove the filter from the shut-off assembly.
- 3.Clean any debris from inside the handle, shut-off assembly, or the filter by rinsing with cool, clean water.
- 4. Reassemble the components as shown and tighten all connections securely.



- A. Handle
- **B. Filter**
- C. Shut-off Assembly



# **Troubleshooting**

TROUBLE	LOOK FOR	REMEDY
Sprayer starts to spray when pumping or sprayer will not stop spraying when shutoff lever is released.	Shut-off lock is engaged.	Squeeze shut-off lever and rotate the lock towards the nozzle as described in Spraying and Locking section.
Sprayer leaks air at pump or sprayer does not build pressure.	<ol> <li>Dirt or debris on pump gasket (Fig 1) or tank thread.</li> <li>Dirt or debris under pump valve (Fig 4)</li> <li>Chipped, torn, swollen, damaged pump or missing valve at bottom of pump (Fig 4)</li> <li>Worn or damaged O-ring on piston (Fig 3)</li> </ol>	<ol> <li>Clean dirt or debris from gasket         (Fig 1) or closure.</li> <li>Remove and clean dirt or debris from         valve (Fig 4) and sealing surface on         pump.</li> <li>Replace if worn or missing valve         as described in Pump Disassembly         &amp; Reassembly section</li> <li>Replace if worn or damaged as         described in Pump Disassembly &amp;         Reassembly section.</li> </ol>
Sprayer material overflows through pump barrel or pump handle rises when handle is unlocked.	1. Dirt or debris under pump valve (Fig 4) 2. Chipped, torn, swollen, damaged pump or missing valve at bottom of pump (Fig 4)	<ol> <li>Remove and clean dirt or debris from valve (Fig 4) and sealing surface on pump.</li> <li>Replace if worn or missing valve as described in Pump Disassembly &amp; Reassembly section.</li> </ol>
Hose leaks at tank or shut-off.	Loose hose nut.     Cracked, swollen or faulty hose.	1. Tighten hose nut. 2. Replace hose
Sprayer is difficult to pump.	<ol> <li>Damaged piston O-ring (Fig</li> <li>3)</li> <li>Piston O-ring (Fig 3) is dry.</li> </ol>	<ol> <li>Replace piston O-ring as described in Pump Disassembly &amp; Reassembly section.</li> <li>Lubricate piston O-ring as described in Pump Disassembly &amp; Reassembly section.</li> </ol>
Sprayer tank leaks.	1. Liquid escaping from crack in tank.	1. Replace entire sprayer.
Nozzle drips when shut- off lever is released.	1. Dirt or debris in shut-off valve. 2. Damaged o-ring or seal in shut-off.	<ol> <li>Clean shut-off as described in Shut-off Maintenance section.</li> <li>Replace shut off seals (Parts Service Kit 183863)</li> </ol>
Nozzle tip leaks, poor spray pattern, partial spray or complete stoppage.	<ol> <li>Flat seal missing or damaged.</li> <li>Spray extension or nozzle clogged.</li> </ol>	<ol> <li>Replace flat seal (Parts Service Kit 183863)</li> <li>Remove nozzle and clean as described in nozzle Maintenance section.</li> </ol>



# **Spare Parts**



	Code	Description
1	183869	Hand Pump Assembly
2	183870	Pressure Relief Valve
3	183862	Nozzle Kit
4	183871	Hand Pump Repair Kit
5	183859	Trigger Assembly (Shut Off Assembly)
5A	183863	Trigger Assembly & Wand Repair Kit
6	183860	Stainless Steel Wand
7	183861	Poly Wand