

Installation Instructions

Installation

Note: Determine the left and right sides of the machine from the normal operating position.

Note: You will need to purchase Teflon tape before installing this kit.

Description	Qty.	Use
Hose hook	2	Install the hose hooks
Carriage bolt, 5/16 x 3/4 inch	2	
Washer, 3/8 inch	2	
Flange nut, 5/16 inch	2	
Barbed hose fitting, large	1	
S67 female/female fitting	1	
Control valve assembly	1	
Spacer	1	Install the control valve.
Flange-head bolt, 5/16 x 3 inches	2	
Washer, 3/8 inch	2	
Flange nut, 5/16 inch	2	
Hose assembly, long	1	
S53 tee	1	
S53 tee fitting	2	
Hose assembly, short	1	
O-ring	1	
Retainer, large	3	
Retainer, small	3	
Plastic hose clamp, large (1 inch)	2	
Pressure gauge	1	Install the switches, gauge, and cover
Reducer fitting and nut	1	
Plastic fitting, small	1	
Control box cover	1	
Flange-head bolt, 1/4 x 3/8 inch	3	
Control handle	1	
Screw	1	
Red tubing	1	
Hose and spray gun assembly	1	Connect the spray hose

Preparing the Machine

- 1. If chemicals have been used in the machine, flush the system thoroughly with clean water; refer to your vehicle *Operator's Manual* for instructions. Ensure that the machine is empty of all fluids.
- **2.** Disconnect the negative battery terminal from the battery.

Installing the Hose Hooks

1. Remove the fasteners securing the right side of the rear tank strap (Fig. 1).

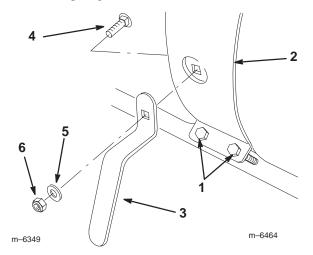


Figure 1

- 1. Tank strap fasteners
- 2. Rear tank strap
- 3. Hose hook
- 4. Carriage bolt, 5/16 x 3/4 inch
- 5. Washer, 3/8 inch
- 6. Flange nut, 5/16 inch
- 2. Install the lower hose hook as shown in Figure 1, using a carriage bolt (5/16 x 3/4 inch), a washer (3/8 inch), and a flange nut (5/16 inch).

3. Install the upper hose hook as shown in Figure 2, using a carriage bolt (5/16 x 3/4 inch), a washer (3/8 inch), and a flange nut (5/16 inch).

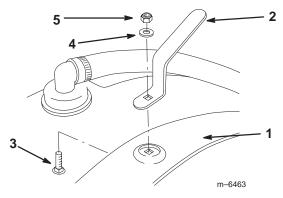


Figure 2

- Rear tank strap
- 2. Hose hook
- 3. Carriage bolt, 5/16 x 3/4 inch
- 4. Washer, 3/8 inch
- 5. Flange nut, 5/16 inch
- **4.** Secure the tank strap using the fasteners you removed previously.

Installing the Control Valve

Preparing the Machine

Drill 2 holes (11/32 inch dia) in the right, rear boom frame, 2-1/4 inches (5.7 cm) from the top of the frame and 3 inches (7.6 cm) apart as shown in Figure 3.

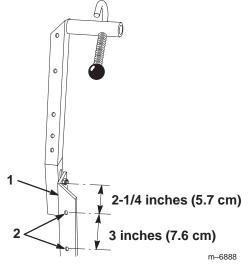
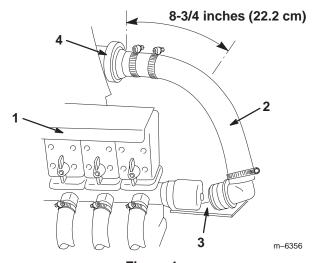


Figure 3

- 1. Right, rear boom frame
- 2. Drill these holes, 11/32 inch dia

Tapping into the Machine Hoses

1. Remove the retainer securing the end of the boom supply hose connected to the tee located to the right of the boom supply valves and disconnect it (Fig. 4).



- Figure 4
- 1. Boom supply valves
- 3. Disconnect here
- 2. Boom supply hose
- 4. Flow meter
- 2. Cut the boom supply hose 8-3/4 inches (22.2 cm) to the right of the flow meter (if equipped) or 32 inches (81 cm) from the supply tee (located directly behind the boom valves) using a hacksaw (Fig. 4). Remove the hose clamp from the loose end and discard the hose and fitting.
- **3.** Apply a liberal amount of liquid soap to the barb of the large fitting and to the inside of the hose coming from the flow meter or supply tee as applicable.
- **4.** Slide a large ratcheting hose clamp (removed from the hose in step 2) over the hose and install the fitting all the way into the hose, securing it with the hose clamp (Fig. 5).

Important The fitting may be very difficult to push into the hose. It is very important, however, that you get it all the way into the hose, ensuring that it will not leak. You may need to remove the hose from the machine at the flow meter.

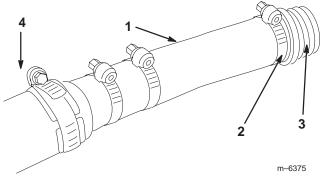


Figure 5

1. Hose

- 3. Fitting
- 2. Ratcheting hose clamp
- 4. Flow divider
- **5.** Cut the by-pass hose half way between the boom valves and the tank (Fig. 6).

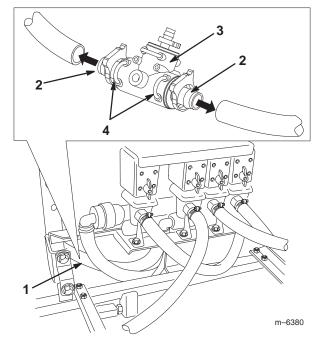


Figure 6

- 1. By-pass hose
- 3. S53 tee
- 2. S53 tee fitting
- 4. Small retainer
- **6.** Using liquid soap on the barbs, insert an S53 tee fitting into each hose end and secure them using 2 large, plastic hose clamps (Fig. 6).
- **7.** Assemble the S53 tee to the fittings, using 2 small retainers (Fig. 6).

Installing the Control Valve

1. Look in the opening under the control valve and ensure that the opening in the white ball valve is open toward the bottom (Fig. 8).

If it is not, turn the cross shaped control on the face of the control valve counter-clockwise until the opening in the ball valve is fully visible from below.

2. Connect the hose from the flow meter or supply tee as applicable to the control valve using an S67 female/female fitting and 2 large retainers (Fig. 7).

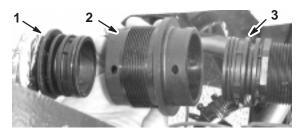


Figure 7

- Hose from the flow meter or supply tee
- 2. S67 female/female fitting
- 3. Fitting on the back of the control valve
- **3.** Install the control valve to the boom frame (Fig. 8), using a spacer, 2 flange-head bolts (5/16 x 3 inches), 2 washers (3/8 inch), and 2 flange nuts (5/16 inch).

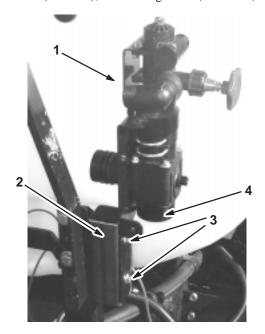


Figure 8

- 1. Control valve
- 2. Spacer
- Flange head bolts (5/16 x 3 inches), washers (3/8 inch), and flange nuts (5/16 inch)
- 4. Bottom opening of the control valve.

Note: If there is not enough clearance between the control valve and the tank, loosen the 2 bolts securing the boom frame to the vehicle and back the boom frame out until there is at least 3 inches of clearance between the control valve and the tank (Fig. 9). Tighten the bolts to secure the boom frame (it will slide in about 1-1/2 inches (4 cm) as you tighten the bolts).

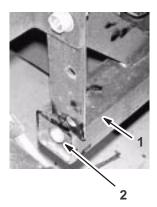


Figure 9
Boom frame, left side

- 1. Boom frame
- 2. Boom frame bolt
- **4.** Install the short hose assembly to the bottom of the control valve and to the boom supply valves, securing it with one previously used retainer and one new retainer (Fig. 10).

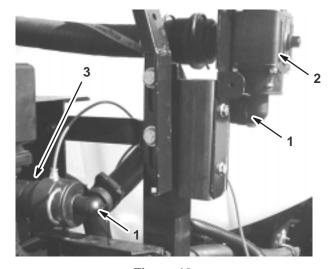


Figure 10

- 1. 1-1/2 inch dia hose assembly
- 2. Control valve
- 3. Boom supply valve fitting
- Lightly coat a white O-ring from the kit with vegetable oil.
- **6.** Insert the O-ring into the female threaded end of the long hose assembly and install it onto the fitting on the side of the control valve (Fig. 11).

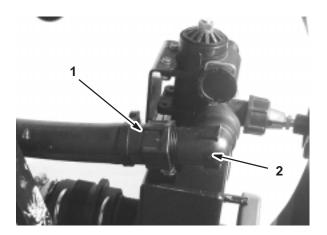


Figure 11

- 1. Female-threaded end of the short hose assembly
- 2. Fitting on the side of the control valve
- 7. Connect the other end of the long hose assembly to the open fitting on the S53 tee that you installed into the by-pass hose (Fig. 6) and secure it with a small retainer.

Installing the Pressure Gauge and Cover

1. Wrap Teflon tape counterclockwise around the threads of the gauge and install the reducer fitting onto the gauge (Fig. 12).

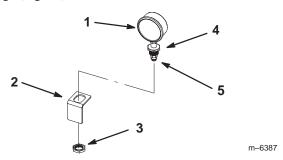


Figure 12

- 1. Pressure gauge
- 2. Bracket (inside of the control box cover)
- 3. Nut
 - 4. Reducer fitting
- 5. Black plastic fitting
- **2.** Install the black plastic fitting into the reducer fitting on the gauge (Fig. 12).
- **3.** Install the pressure gauge into the bracket under the circular opening inside the control valve cover, securing it with the nut packaged with it (Fig. 12).

Note: The face of the gauge must face the circular opening of the cover.

4. Install the cover on the control valve assembly (Fig.13), securing it with 3 bolts.

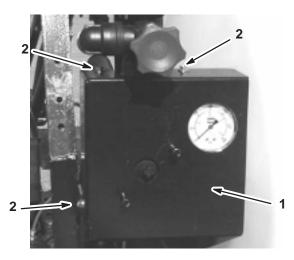


Figure 13

- 1. Control valve cover
- 2. Bolt
- **5.** Push the end of the small red tube into the fitting on the bottom of the pressure gauge.
- **6.** Push the other end of the red tube into the fitting on the back of the control valve.
- Install the red handle on the face of the control valve assembly and secure it with the screw as shown in Figure 14.

Note: Ensure that you install the handle in the orientation shown in Figure 14.

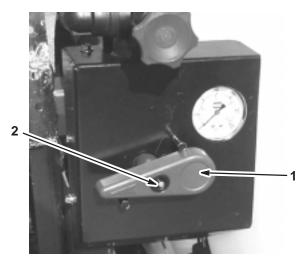


Figure 14

- 1. Control handle
- 2. Screw

Connecting the Spray Hose

1. Thread and tighten the nut on the end of the hose and spray gun assembly to the threaded male fitting on the control valve assembly (Fig. 15).

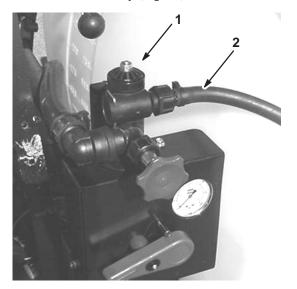


Figure 15

- 1. Control valve
- 2. Hose
- **2.** Wrap the hose around the hooks on the tank and secure the gun as illustrated in Figure 16.



Figure 16

3. Ensure that the control valve assembly and the tank are about 1 inch apart. If they are not, adjust the boom frame (Fig. 9).

Safety Instructions

Improper use or maintenance by the operator or owner can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety alert A symbol, which means CAUTION, WARNING, or DANGER—"personal safety instruction." Failure to comply with the instruction may result in personal injury or death.

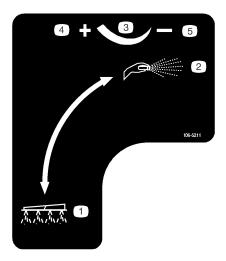
Read also the safety and operation instructions in the vehicle *Operator's Manual*.

- Do not aim the hand sprayer at any person or animal.
 Fluids under high pressure can penetrate skin and cause severe injury, possibly resulting in amputation or death.
 Hot liquids and chemicals can also cause burns or injury. If any part of the body comes in contact with the spray stream, immediately consult a physician familiar with injected fluid injuries.
- Do not place your hand or any other part of your body in front of the spray nozzle.
- Do not leave the equipment under pressure when you are not present.
- Do not use the hand sprayer if the hose, trigger lock, nozzle, or any other part is damaged or missing.
- Do not use the hand sprayer if there are any leaks in any hoses, fittings, or other components.
- Do not spray near power lines; the spray stream could contact the power lines and give you a potentially fatal electrical shock.
- Do not drive while spraying with a hand sprayer.
- Wear rubber gloves, safety goggles, and a full body protective suit when spraying chemicals with the hand sprayer.

Safety and Instruction Decals



Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or lost.



106-5211

- 1. Boom spray
- 2. Hand spray
- 3. Continuous variable setting
- 4. Increase
- 5. Decrease

Operation



Warning



Fluid under pressure can penetrate skin and cause injury.

- Keep your body and hands away from nozzles that eject high pressure fluid.
- Do not aim the sprayer at any person or animal.
- Make sure all fluid hoses and lines are in good condition and all connections and fittings are tight before applying pressure to the system.
- Use cardboard or paper to find leaks.
- Safely relieve all pressure in the system before performing any work on it.
- Get immediate medical help if fluid is injected into skin.
- Hot liquids and chemicals can cause burns or other harm.

Switching from Boom Spray Mode to Hand Spray Mode

1. Stop the machine and set the parking brake.

A

Warning



Driving while using the hand sprayer can cause loss of control, resulting in injury or death.

Do not operate the hand sprayer while driving.

- **2.** Ensure that the pump switch is on and the Pro Control (if applicable) is set in the manual position.
- 3. Set the throttle to the hand position.
- **4.** Ensure that the trigger lock on the spray gun is locked.
- **5.** Turn the pressure control knob all the way counter-clockwise (Fig. 17).

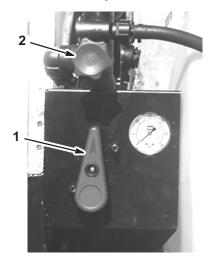


Figure 17

- 1. Control handle
- 2. Pressure control knob
- **6.** Move the control handle clockwise, pointing up (Fig. 17).
- 7. Turn on the pump and agitation switches.
- **8.** Adjust the rate control switch to increase the pressure.
- **9.** Use the pressure control knob to adjust the hand spray pressure (Fig. 17).

Note: The maximum pressure is 150 psi.

Spraying with the Hand Sprayer

1. Unwind the hose from the hooks.

- **2.** Release the trigger lock.
- **3.** Direct the spray gun nozzle at the area to be sprayed and pull the trigger.
- **4.** Release the trigger and set the trigger lock when finished.

Switching from Hand Spray Mode to Boom Spray Mode

- **1.** Press the rate control switch to reduce the pressure and stop the pump.
- **2.** Move the control handle counter-clockwise, pointing rearward (Fig. 18).

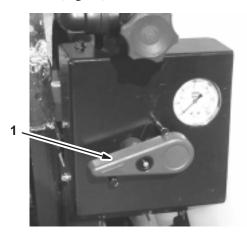


Figure 18

- 1. Control handle
- **3.** Direct the spray gun nozzle at an area where it is safe to spray, release the trigger lock, and pull the trigger until all remaining fluid is out of the hose, then set the trigger lock.
- **4.** Wrap the hose around the hooks on the tank and secure the gun as illustrated in Figure 19.



Figure 19