



Hose Reel Kit

Multi-Pro® 5600 Turf Sprayer

Model No. 41569—Serial No. 20000201 and Up

Installation Instructions

Installation

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

Note: For an electrical schematic and flow diagram, refer to the *Parts Catalog*.

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

Description	Qty.	Use
Hose reel support	1	Assemble the frame.
Flange-head bolt, 3/8 x 1 inch	10	
Flange nut, 3/8 inch	10	
Hose reel strap	2	
Hose reel assembly	1	
Flange-head bolt, 5/16 x 1 inch	1	
Flange nut, 5/16 inch	1	
Cable tie	10	
Control box support bracket	1	Install the flow control box.
Flange-head bolt, 1/2 x 1/2 inch	1	
Flange nut, 1/2 inch	1	
Control valve assembly	1	
S53 tee fitting	2	
Plastic hose clamp, large (1 inch)	4	
Plastic hose clamp, small (1/2 inch)	6	
Control box mounting bracket	1	
Flange-head bolt, 5/16 x 3/4 inch	2	
Flange nut, 5/16 inch	2	
Ball valve assembly	1	
Flange-head bolt, 1/4 x 3/4 inch	4	
Flange nut, 1/4 inch	2	
Rubber trim piece	1	
Short hose, 1/2 inch dia	3	
Plastic barbed fitting, 1/2 inch	1	

Description	Qty.	Use
Pressure gauge	1	Install the switches, gauge, and cover
Reducer fitting and nut	1	
Plastic fitting, small	1	
Control box cover	1	
Silver fitting, small	1	
Red tubing	1	
Toggle switch	1	
Momentary switch	1	
Rear control box wire harness	1	
Fuse, 10 amp	1	
Switch wire cover	1	
Flange-head bolt, 1/4 x 3/4 inch	9	
Flange nut, 1/4 inch	4	
Knob	1	
Long hose with fitting, 1/2 inch dia	1	Connect the spray hose
Spray gun	1	
Plastic hose clamp, small (one extra one included)	2	

Preparing the Machine

1. Ensure that the machine is empty of all fluids. If chemicals have been used in the machine, flush the system thoroughly with clean water then drain the water; refer to your vehicle *Operator's Manual* for instructions.
2. Disconnect the negative battery terminal from the battery.
3. On the tank saddle on the right side of the machine, locate the third hole from the front of the machine. Measure and mark a location on the tank saddle 2 inches (5 cm) behind the center of the 3rd hole (Fig. 1).

Note: If a hole already exists at this location, skip to the Assembling the Frame section.

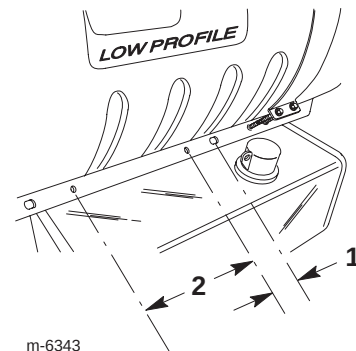


Figure 1

1. 2 inches
2. 10 inches

4. From your mark, measure 10 inches (25 cm) rearward and mark that location (Fig. 1).
5. Drill 2 holes (7/16 inch dia) at the marked locations, centered vertically in the tank saddle (Fig. 1).

Assembling the Frame

1. Install the hose reel support to the hydraulic reservoir mount (Fig. 2) using 2 flange-head bolts (3/8 x 1 inch) and 2 flange nuts (3/8 inch). Do not fully tighten the nuts to allow for adjustment later.

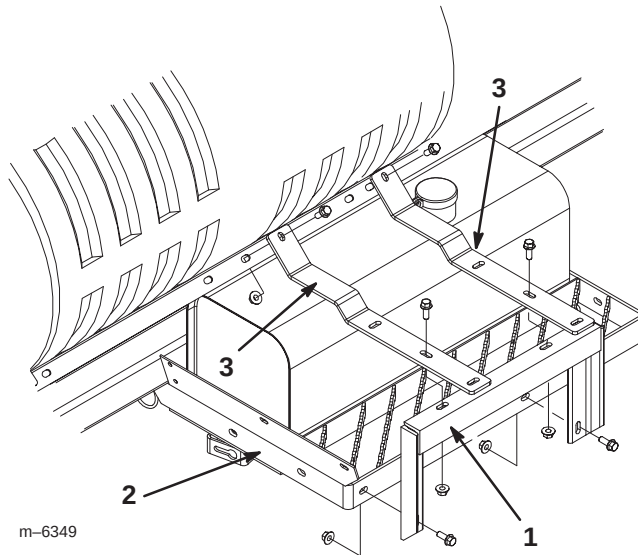


Figure 2

- | | |
|------------------------------|---------------------|
| 1. Hose reel support | 3. Hose reel straps |
| 2. Hydraulic reservoir mount | |

2. Install the ends of the 2 hose reel straps to holes in the tank saddle that you located and/or drilled earlier (Fig. 2) using 2 flange-head bolts (3/8 x 1 inch) and 2 flange nuts (3/8 inch).
3. Attach the hose reel support to the hose reel straps (Fig. 2) using 2 flange-head bolts (3/8 x 1 inch) and 2 flange nuts (3/8 inch).
4. Level the straps and hose reel support and then tighten all fasteners.
5. Install the hose reel assembly onto the hose reel straps (Fig. 3) using 4 flange-head bolts (3/8 x 1 inch) and 4 flange nuts (3/8 inch).

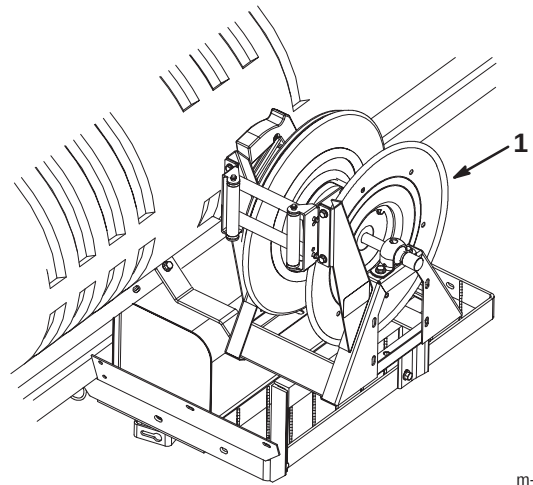


Figure 3

1. Hose reel assembly

6. Remove and discard the bolt and nut from the lower inside roller support on the hose reel and install the electrical box in that hole (Fig. 4), using a flange-head bolt (5/16 x 1 inch) and a flange nut (5/16 inch).

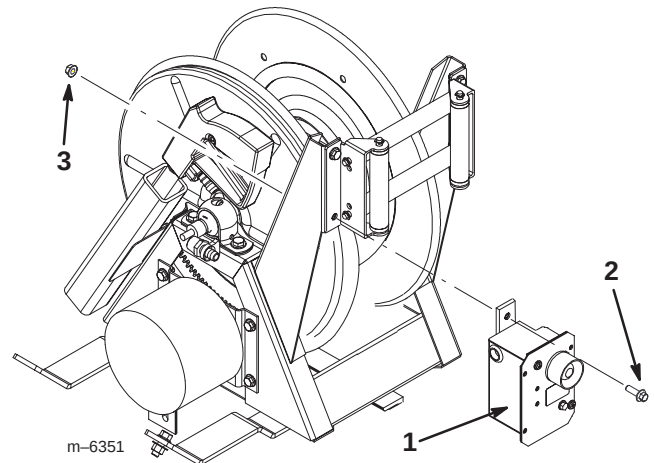


Figure 4

- | | |
|------------------------------------|--------------------------|
| 1. Electrical box | 3. Flange nut, 5/16 inch |
| 2. Flange-head bolt, 5/16 x 1 inch | |

7. Route the hose reel wire harness from the electrical box behind the saddle supports and under the seat box to the area under the driver's seat.

8. Route the harness along the main wiring harness to the fuse block/solenoid area and secure it using 10 cable ties.
9. Connect the power wire to the solenoid under the driver's seat (Fig. 5).

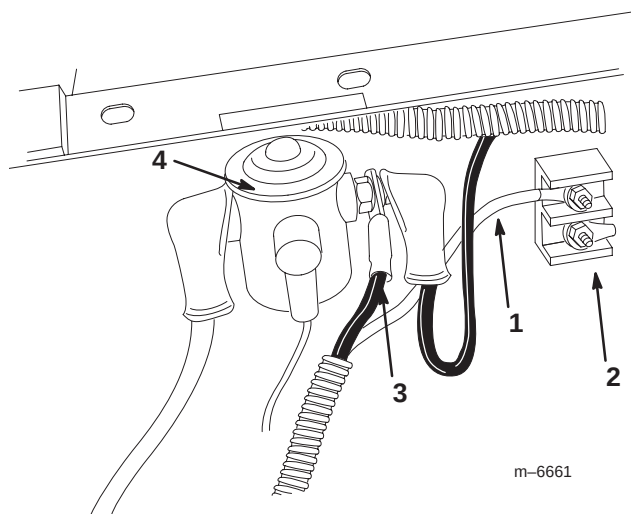


Figure 5

1. Black ground wire from the electrical box on the hose reel.
2. Ground terminal block
3. Red power wire from the electrical box on the hose reel.
4. Solenoid

10. Connect the end of the black ground wire to a ground stud on the ground terminal block (Fig. 5).

Installing the Flow Control Box

Preparing the Machine

Prepare/install the mounting post as follows:

- If you have a standard boom on your machine, drill one hole (11/32 inch dia) in the right-side boom holder, 3-5/8 inches (9.2 cm) above the center of the lowest hole (Fig. 6).

Note: Check the position of the right boom holder. It should be installed as far down in the mounting slots as possible. If it is not, loosen the mounting fasteners, slide it down, and tighten the fasteners.

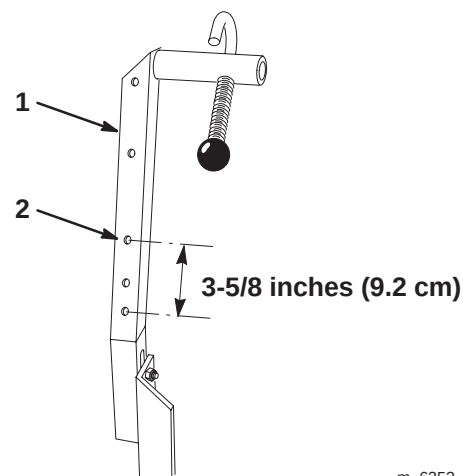


Figure 6

1. Right boom holder
2. Drill this hole, 11/32 inch dia

- If you have the covered booms or do not have booms, install the control box support bracket to the right rear boom frame (Fig. 7) using existing hardware and a flange-head bolt (1/2 x 1/2 inch) and a flange nut (1/2 inch).

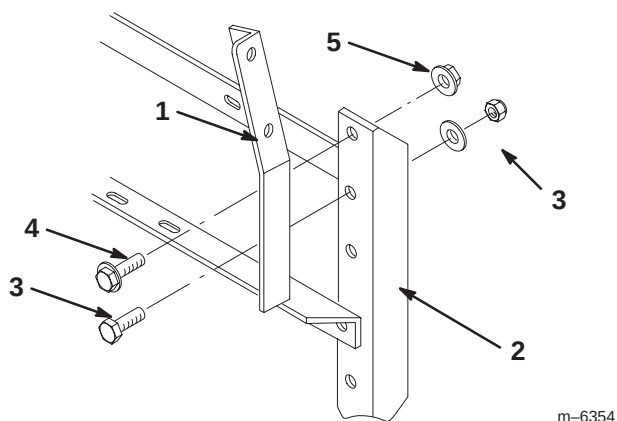


Figure 7

1. Control box support bracket
2. Right rear boom frame
3. Existing hardware
4. Flange-head bolt, 1/2 x 1/2 inch
5. Flange nut, 1/2 inch

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. 8).

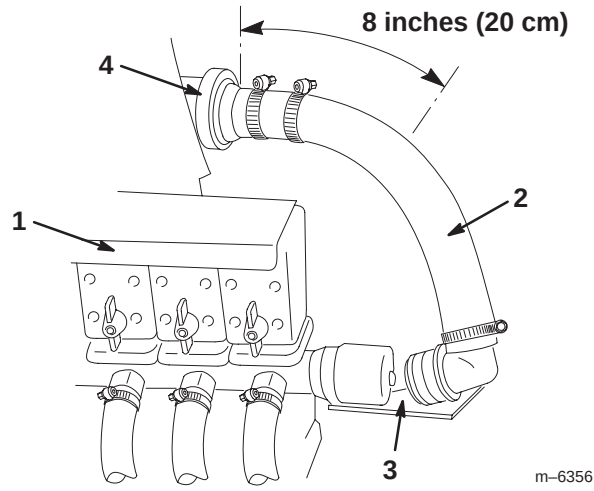


Figure 8

- | | |
|-----------------------|--------------------|
| 1. Boom supply valves | 3. Disconnect here |
| 2. Boom supply hose | 4. Flow meter |

2. Cut the boom supply hose 8 inches (20 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. 8). Remove the hose clamp from the loose end and discard the hose and fitting.
3. Remove the barbed fitting and retainer from the control valve assembly (Fig. 13).
4. Apply a liberal amount of liquid soap to the barb of the fitting and to the inside of the hose coming from the flow meter or supply tee as applicable.
5. 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. 9).

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.

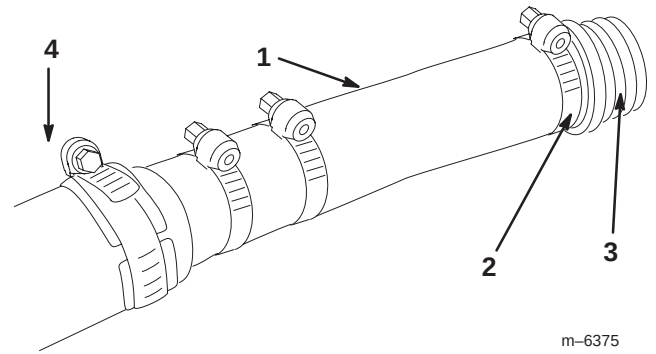


Figure 9

- | | |
|--------------------------|-----------------|
| 1. Hose | 3. Fitting |
| 2. Ratcheting hose clamp | 4. Flow divider |

6. Remove the fasteners securing the tee behind the boom supply valve so that the tee will drop down, hanging on the hoses (Fig. 10).

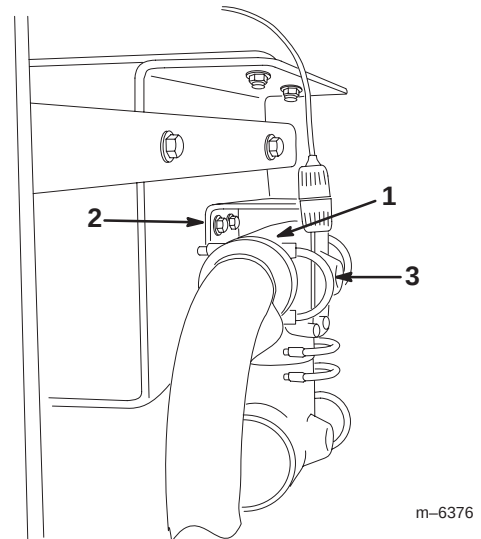


Figure 10

- | | |
|----------------------------------|---------------------------|
| 1. Tee behind boom supply valves | 2. Fasteners |
| | 3. Port (drill hole here) |

7. Carefully drill a hole (1/4 inch dia) in the face of the port on the back of the tee (Fig. 10).
8. Replace the tee on the back of the boom supply valves, securing it with the fasteners you removed previously.

9. Cut the by-pass hose half way between the boom valves and the tank (Fig. 11).

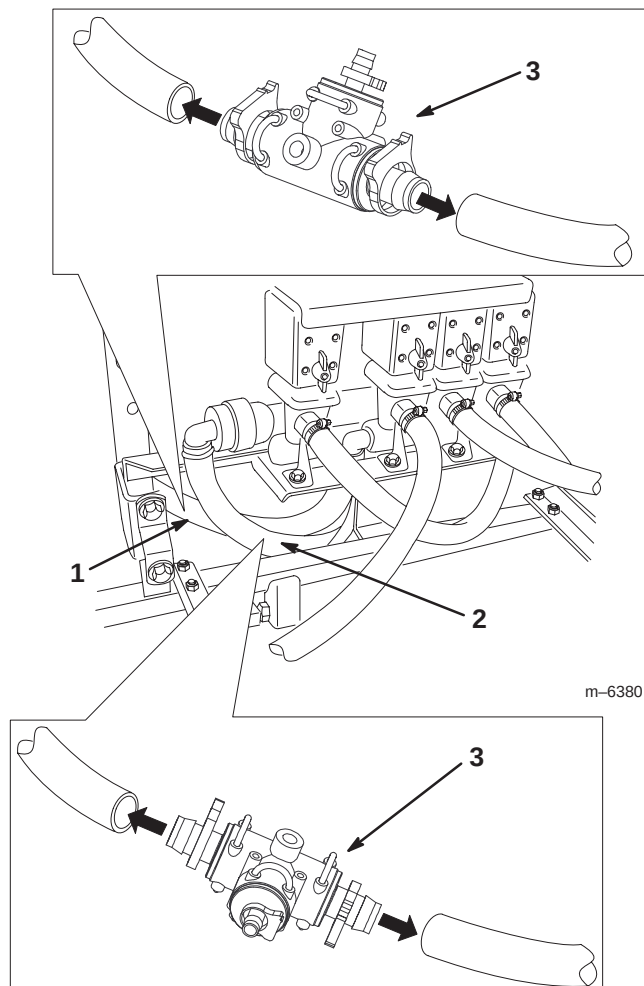


Figure 11

1. By-pass hose
2. Agitation hose
3. S53 tee fitting

10. Using liquid soap on the barbs, insert an S53 tee fitting assembly into the break and secure it using 2 large, plastic hose clamps (Fig. 11).

11. Cut the agitation supply hose in half (Fig. 11).

12. Using liquid soap on the barbs, insert an S53 tee fitting assembly into the break and secure it using 2 large, plastic hose clamps (Fig. 11).

Installing the Control Valves

1. Install the control box mounting bracket to the boom holder or control box support bracket as appropriate (Fig. 12) using 2 flange-head bolts (5/16 x 3/4 inch) and 2 flange nuts (5/16 inch).

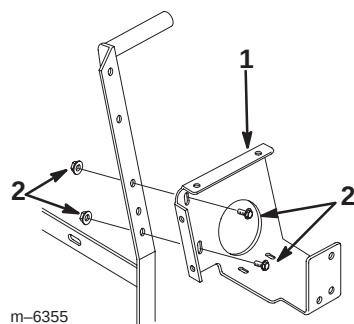


Figure 12

1. Control box mounting bracket
2. Flange-head bolt, 5/16 x 3/4 inch
3. Flange nut, 5/16 inch

2. Connect the end of the lever assembly on the small ball valve assembly to the control valve assembly (Fig. 13).

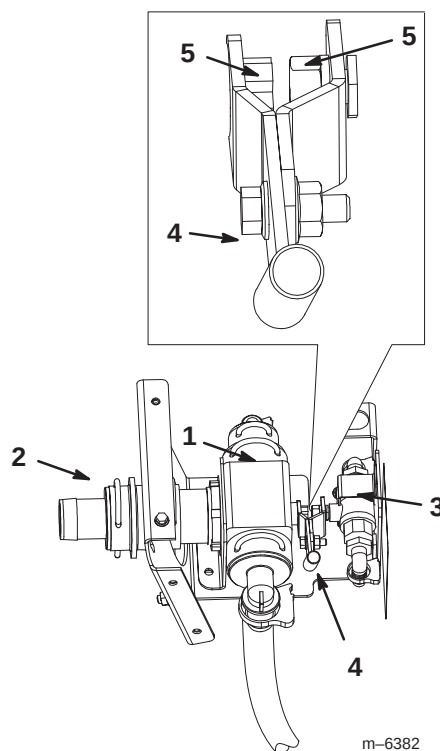


Figure 13

1. Control valve assembly
2. Fitting and retainer
3. Small ball valve assembly
4. Lever assembly
5. Axis of the lever assembly

3. Connect the fitting you installed into the boom supply hose to the control valve assembly, securing it with the retainer you removed previously (Fig. 14).

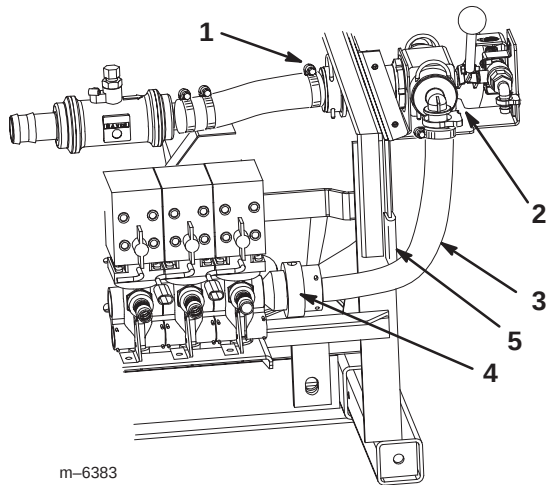


Figure 14

1. Connect the boom supply hose to the control valve assembly here.
 2. Control valve assembly
 3. Large hose
 4. Connect the large hose from the control valve assembly to the boom supply valves here.
 5. Rubber trim
4. Install the control valve assembly onto the control box mounting bracket (Fig. 13) using 2 flange-head bolts (1/4 x 3/4 inch) but do not tighten the fasteners.
 5. Install the small ball valve assembly to the control box mounting bracket (Fig. 13) using 2 flange-head bolts (1/4 x 3/4 inch) and 2 flange nuts (1/4 inch) but do not tighten the fasteners.
 6. Align the axis of the levers on each valve and the valves (Fig. 13) You may need to loosen the hose clamps securing the flow meter to the machine to get everything to fit well.
 7. Tighten all hardware.
 8. Connect the fitting on the large hose on the control valve assembly to the fitting on the right side of the boom supply valves (Fig. 14).
 9. Disconnect the large hose from the control valve and look inside the valve (Fig. 14). You should see an opening in the check ball curving up. If not, rotate the ball until the opening is fully visible and it curves up.
 10. Connect the large hose to the control valve (Fig. 14).
 11. Place the rubber trim piece over the frame edge to protect the hose (Fig. 14).
 12. Connect the end of a short 1/2 inch hose to the open fitting on the S53 tee that you installed into the agitation hose and route it to the rear 1/2 inch barb on the small ball valve assembly (Fig. 15).

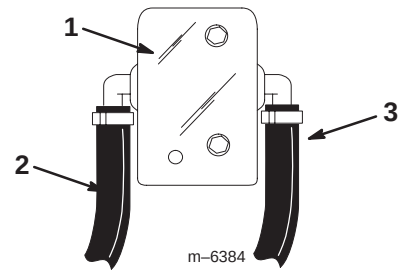


Figure 15

1. Right side of the control box mounting bracket
 2. From agitation hose
 3. From by-pass hose
13. Cut the hose to the appropriate length to remove excess slack and then connect the hose to the rear fitting.
 14. Secure the hose to the fittings using 2 small plastic hose clamps.
 15. Connect the end of a short 1/2 inch hose to the open fitting on the S53 tee that you installed into the by-pass hose and route it to the front 1/2 inch barb on the small ball valve assembly (Fig. 15).
 16. Cut the hose to the appropriate length to remove excess slack and then connect the hose to the front fitting.
 17. Secure the hose to the fittings using 2 small plastic hose clamps.
 18. Wrap Teflon tape counterclockwise around the threads of a barbed fitting (1/2 inch) and install it into the inlet port on the side of the hose reel (Fig. 16).

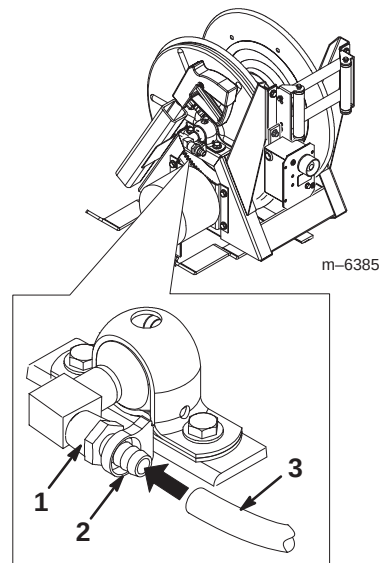


Figure 16

1. Inlet port
2. Barbed fitting, 1/2 inch
3. Hose

19. Connect a 1/2 inch hose to the open fitting on the control valve assembly (Fig. 17).

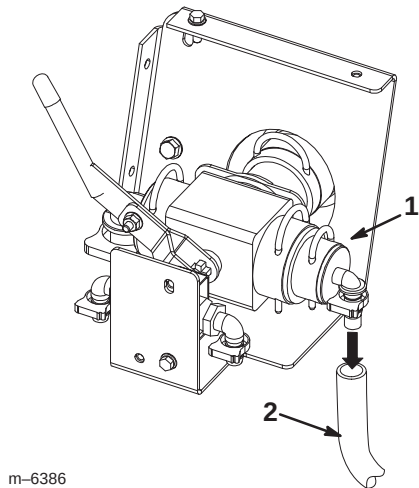


Figure 17

1. Control valve assembly
2. Hose

20. Connect the end of the hose to the fitting on the hose reel (Fig. 16) and secure both ends with 2 small plastic hose clamps.

Installing the Control Switches and Pressure Gauge

1. Wrap Teflon tape counterclockwise around the threads of the gauge and install the reducer fitting onto the gauge (Fig. 18).

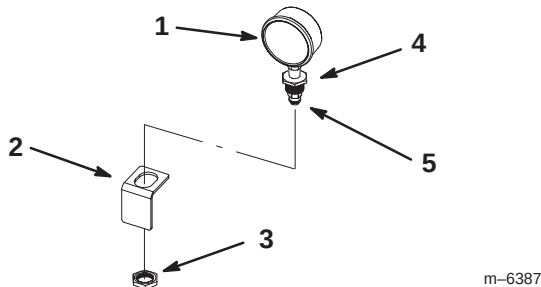


Figure 18

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. 18).
3. Install the pressure gauge into the bracket under the circular opening inside the control box cover, securing it with the nut packaged with it (Fig. 18).

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

4. Wrap Teflon tape counterclockwise around the threads of the small silver fitting that is packaged with the red tubing and install it into the port you drilled out on the tee in front of the boom valves (Fig. 10).
5. Install the two switches into the rectangular holes on the top of the cover (Fig. 19). Install the momentary switch (switch that does not stay in either position when you are not pressing it) into the hole marked with the continuous variable and plus (+) and minus (-) signs.

Note: The small square hole on the bottom of the switches should be oriented toward the long slot in the cover.

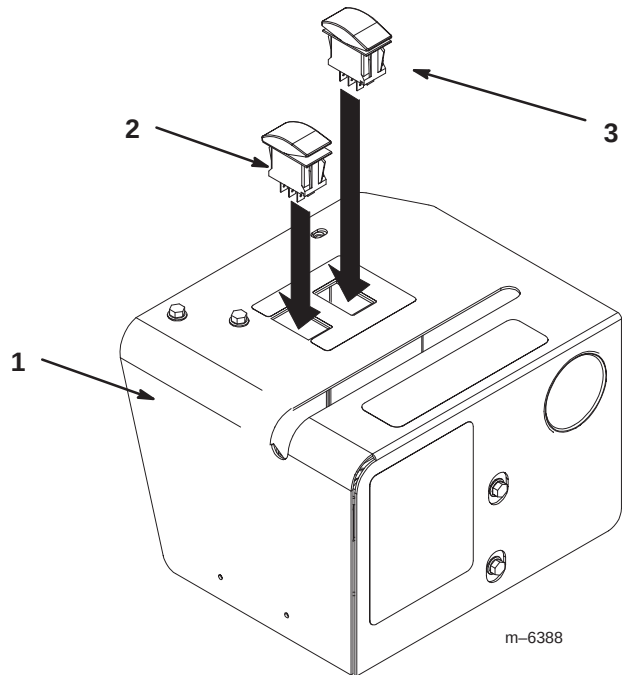


Figure 19

1. Control box cover
2. Toggle switch
3. Momentary switch

6. Disconnect the connectors under the dash between the manual control box and the spray harness (Fig. 20).

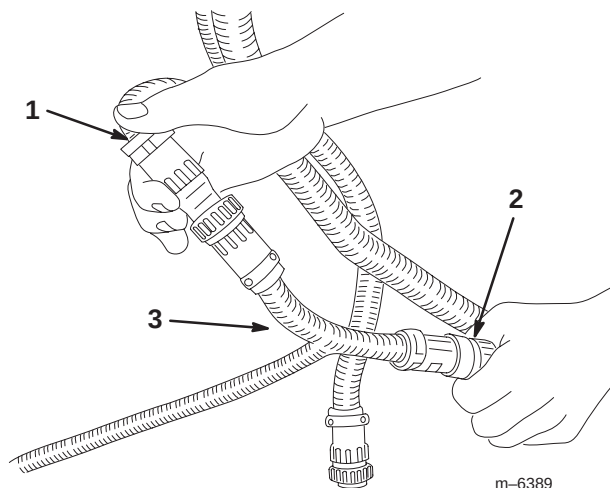


Figure 20

1. Existing manual control box harness
2. Spray harness
3. T-end of the new, rear control box harness

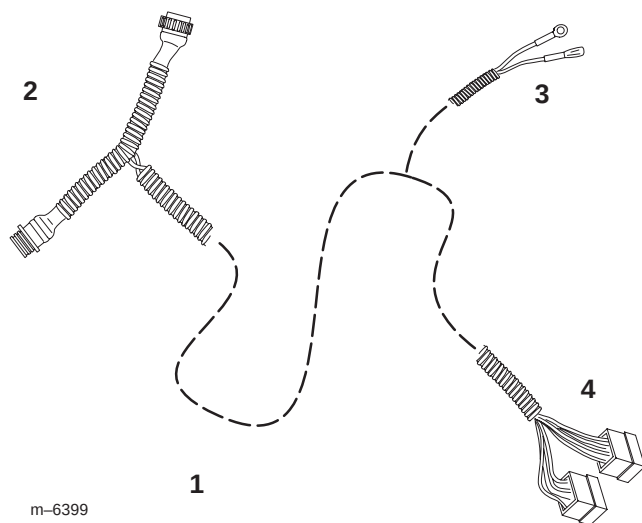


Figure 21

1. Rear control box harness
2. T-end
3. Middle lead with eye-ring connector and spade connector.
4. Switch connectors

7. Connect the T-end of the new rear control box harness between the manual control box harness and the spray harness (Fig. 20 and 21).

8. Route the rear control box harness through the dash, under the vehicle, through the wire harness rings, and back to the control box (Fig. 22 and 23).

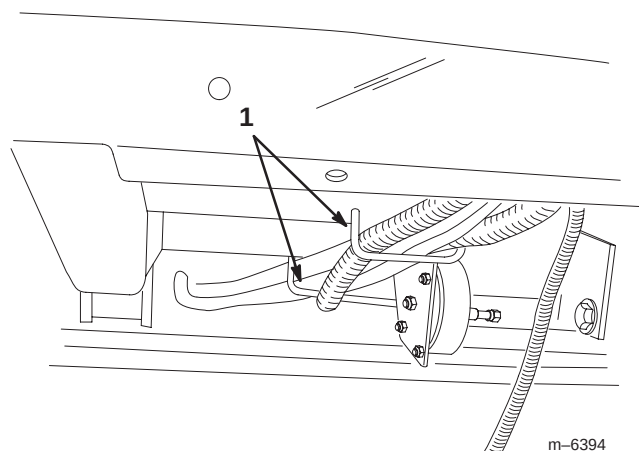


Figure 22

1. Wire harness rings

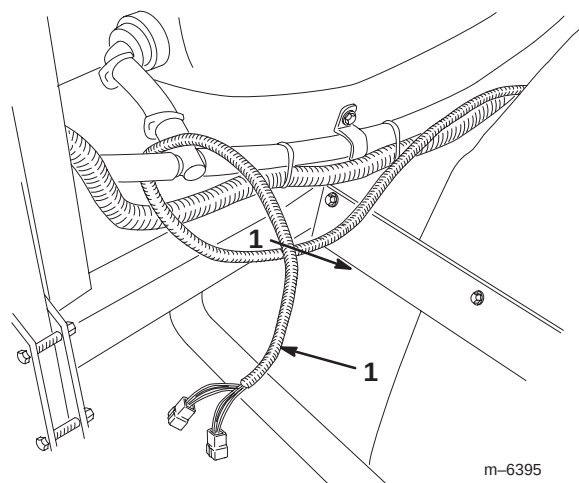


Figure 23

1. Rear control box harness routed to the control box area

9. Route the middle lead into the engine compartment and along the front of the engine through the cable guides securing the main wire harness.

10. Connect the middle lead with the spade connector to the open lead on the fuse box under the driver's seat (Fig. 21 and 24).

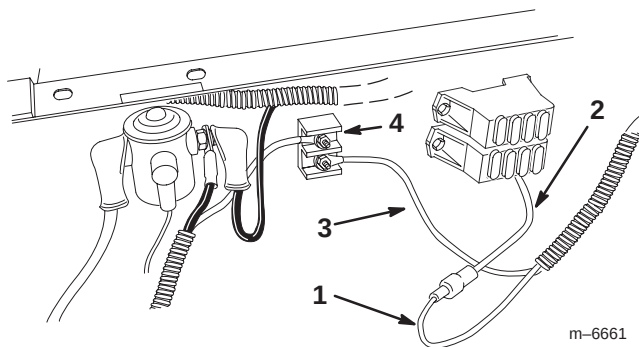


Figure 24

- | | |
|---------------------------------------|---|
| 1. Middle lead with a spade connector | 3. Middle lead with an eye-ring connector |
| 2. Open position on the fuse | 4. Ground terminal block |

11. If necessary, install a 10 amp fuse in the position where you connected the wire.
12. Connect the middle lead with the eye ring connector to a ground stud on the ground terminal block (Fig. 24).
13. Connect the connector with mostly green and yellow wires to the spray selection switch (toggle style switch) (Fig. 25).

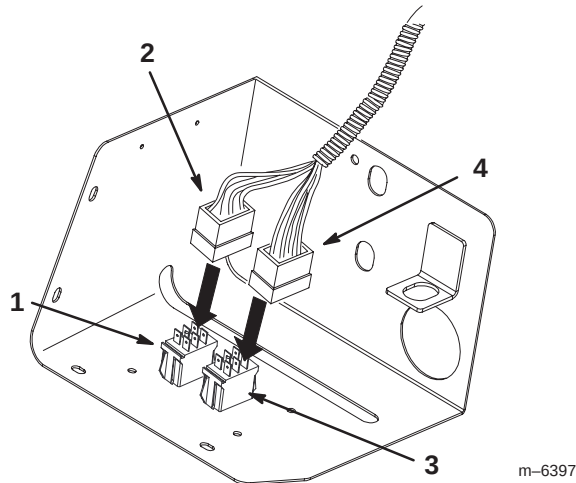


Figure 25

- | | |
|---|---------------------------------------|
| 1. Spray selection switch | 3. Rate control switch |
| 2. Connector with mostly green and yellow wires | 4. Connector with multi-colored wires |

14. Connect the connector with the multi-colored wires to the rate control switch (momentary switch) (Fig. 25).
15. Install the switch wire cover and around the wires (Fig. 26) and secure it with 4 flange-head bolts (1/4 x 3/4 inch) and 4 flange nuts (1/4 inch).

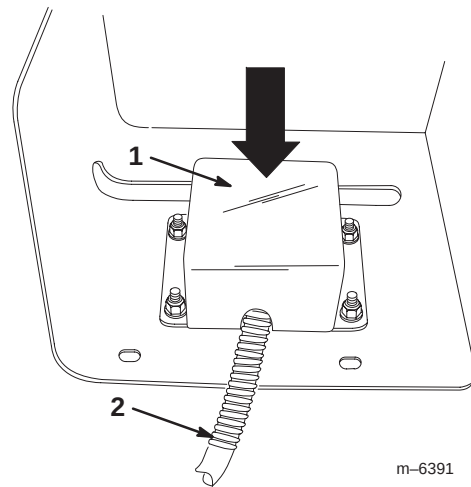


Figure 26

- | | |
|----------------------|-----------------|
| 1. Switch wire cover | 2. Wire harness |
|----------------------|-----------------|

16. Connect the small red tube to the silver fitting you installed in step 4 and the other end to the fitting on the bottom of the pressure gauge.
17. Install the control box cover to the control box mounting bracket (Fig. 27), using 5 flange-head bolts (1/4 x 3/4 inch).

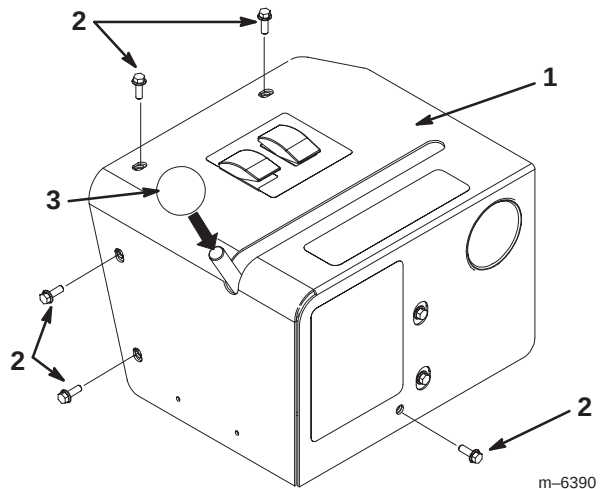


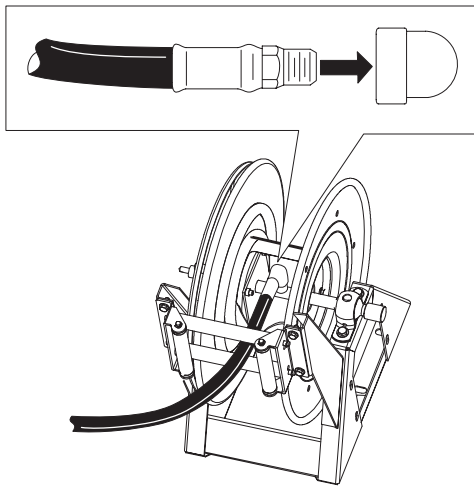
Figure 27

- | | |
|-------------------------------------|---------|
| 1. Control box cover | 3. Knob |
| 2. Flange-head bolt, 1/4 x 3/4 inch | |

18. Install the knob onto the valve control lever (Fig. 27).

Connecting the Spray Hose

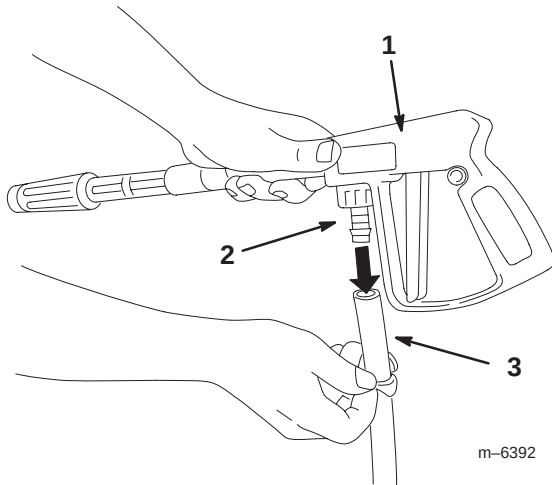
1. Wrap Teflon tape counterclockwise around the threads of the hose fitting on the long hose and install the fitting into the connecting tube on the reel (Fig. 28).



m-6393

Figure 28

2. Connect the free end of the long hose to the fitting on the gun (Fig. 29).



m-6392

Figure 29

1. Spray gun
 2. Hose fitting
 3. Hose
3. Secure the end of the hose with a small plastic hose clamp.
 4. Connect the negative battery wire to the battery and turn the ignition key to the Run position.
 5. Press the hose wind button and carefully guide the hose onto the reel.



Caution



Hands, loose clothing, long hair, and jewelry could get caught in the hose and reel while rewinding and cause injury.

- Keep your hands clear of the reel and hose while it is rewinding.
- Do not wear loose clothing or jewelry and tie up long hair.

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  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.
- 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

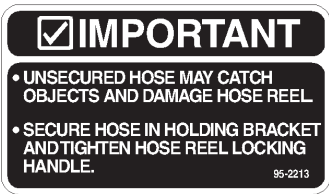


Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or lost.

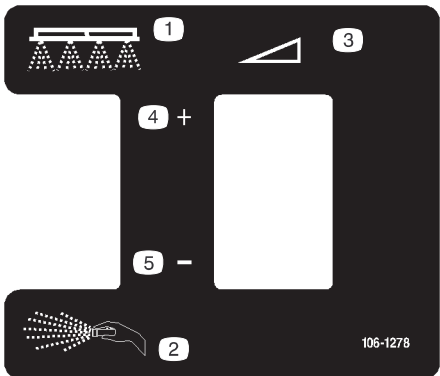


106-1277

1. Boom spray
2. Hand spray



95-2213

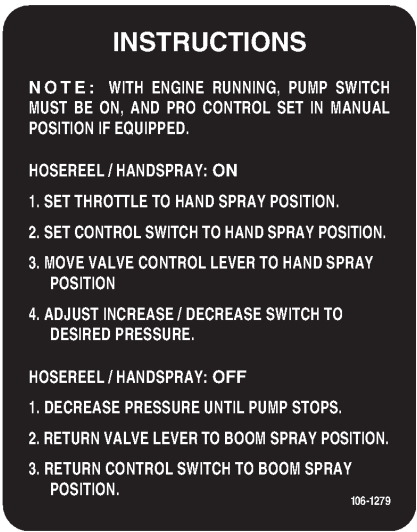


106-1278

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



87-0540



106-1279

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.

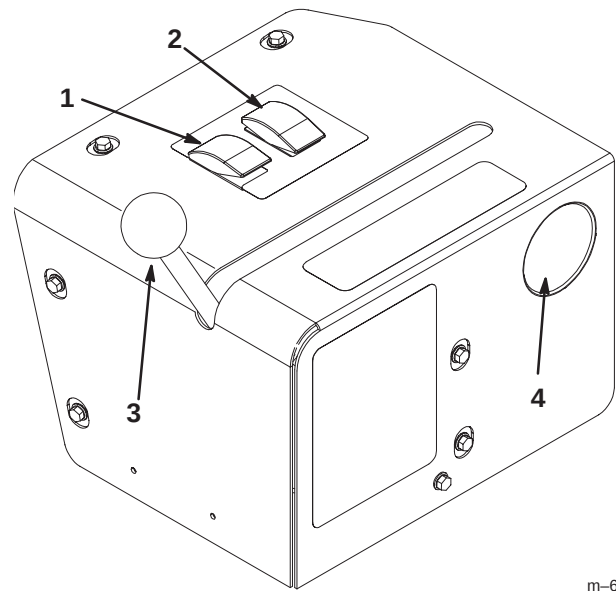


Warning



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 spray position.
4. Ensure that the trigger lock on the spray gun is locked.
5. Set the spray selection switch to the hand spray position (Fig. 30).



m-6404

Figure 30

- | | |
|---------------------------|------------------------|
| 1. Spray selection switch | 3. Valve control lever |
| 2. Rate control switch | 4. Pressure gauge |
6. Move the valve control lever forward to the hand spray position (Fig. 30).
 7. Adjust the rate control switch to increase or decrease the pressure, as read on the pressure gauge, to the desired setting (Fig. 30).

Note: The maximum pressure is 150 psi.

Spraying with the Hand Sprayer

1. Pull out the desired amount of hose from the reel.

Important Do not pull the hose with the spray gun. Always hold the hose and pull on it directly. Pulling on the hose with the gun may break the fitting on the gun.

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 rewind button on the hose reel until only a few feet of hose is out of the reel.



Caution



Hands, loose clothing, long hair, and jewelry could get caught in the hose and reel while rewinding and cause injury.

- **Keep your hands clear of the reel and hose while it is rewinding.**
- **Do not wear loose clothing or jewelry and tie up long hair.**

2. Press the rate control switch to reduce the pressure until the pump stops.
3. Move the valve lever rearward to the boom spray position.
4. 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.
5. Set the spray selection switch to the boom spray position.
6. Return the spray gun to the holder on the back of the reel.

