Form No. 3352-406

Hose Reel Kit
for Multi-Pro® 5600/5700 Turf Sprayers
Model No. 41569—Serial No. 24000102 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	
Hose clamp, large (1 inch)	4	
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	

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CE
Original Instructions (EN, GB)

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	
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.

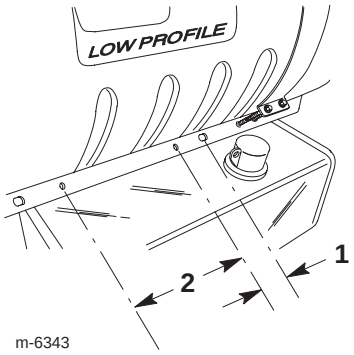

Figure 1

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.

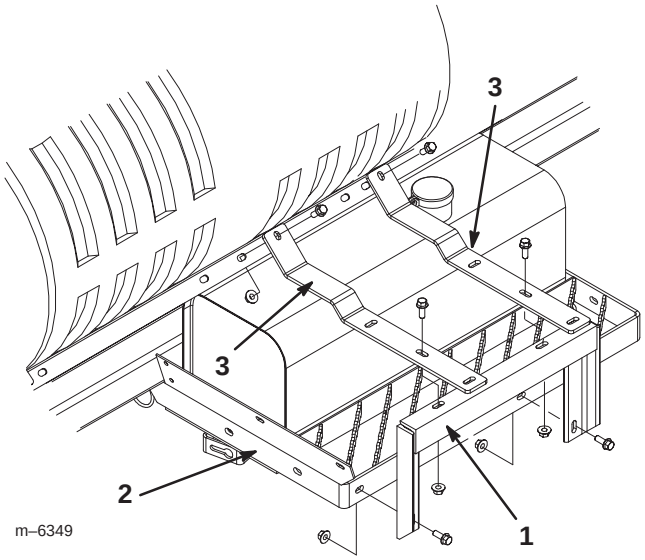

Figure 2

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

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).

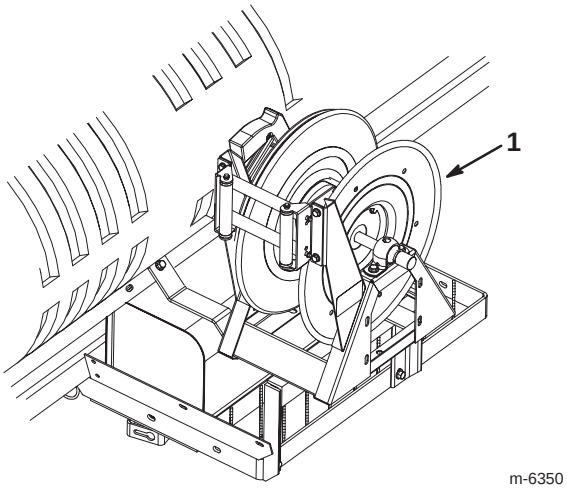

Figure 3

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).

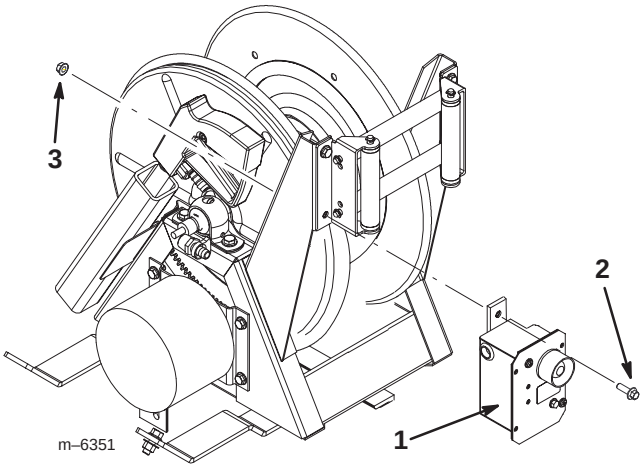

Figure 4

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

7. Route the hose reel wire harness from the electrical box between the machine frame and the saddle supports to join up with the main harness.

8. Follow the main harnes routing into the seat base area, over the radiator and resevoir bottle to the accessory solenoid.

9. Route the harness along the main wiring harness to the fuse block/solenoid area and secure it using 10 cable ties.

10. Connect the power wire to the solenoid under the driver's seat (Fig. 5).

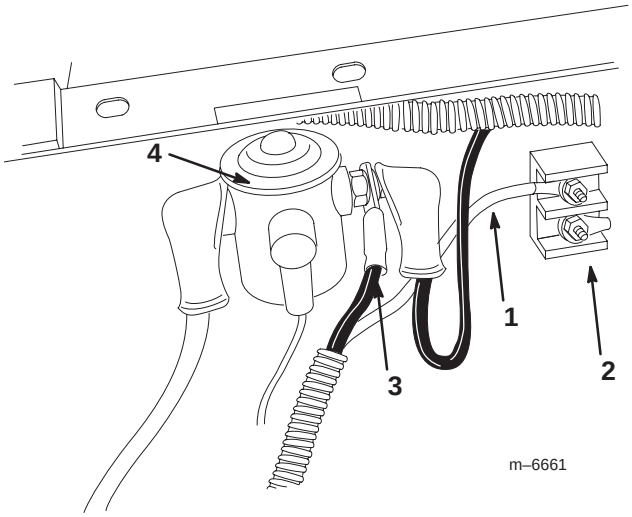

Figure 5

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

11. 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.

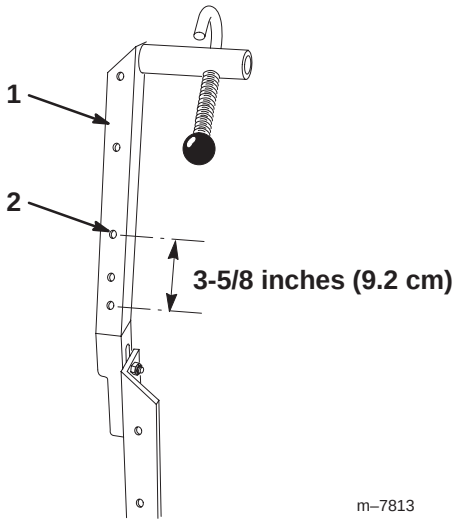

Figure 6

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).

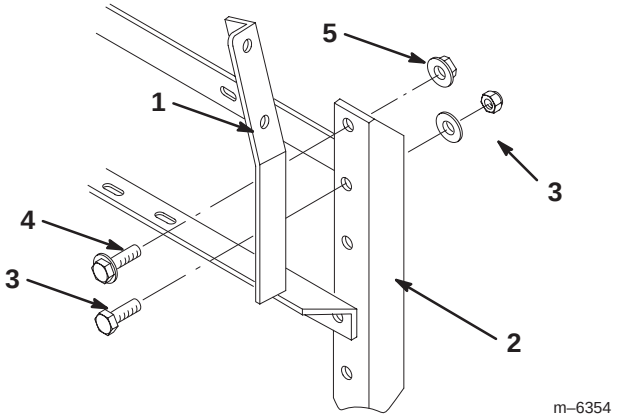

Figure 7

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).

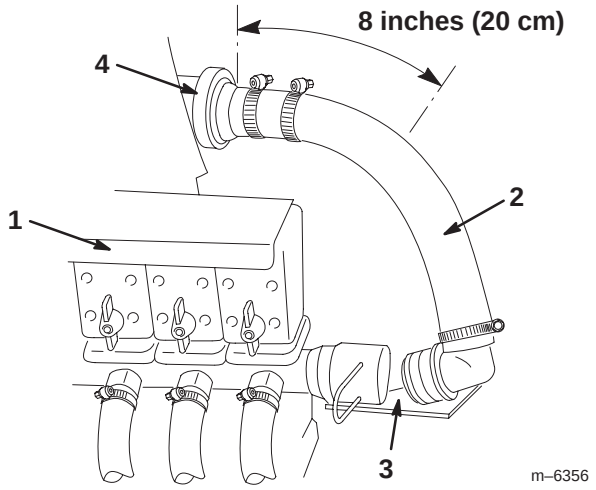

Figure 8

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

2. Cut the boom supply hose 8 inches (20 cm) to the right of the flow meter (if equipped) or 45 inches (114 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.

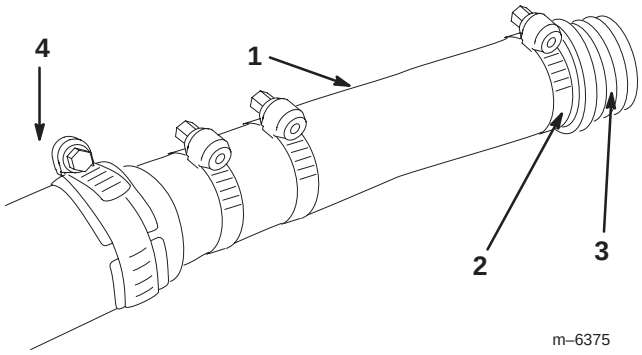

Figure 9

1. Hose
2. Ratcheting hose clamp
3. Fitting
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).

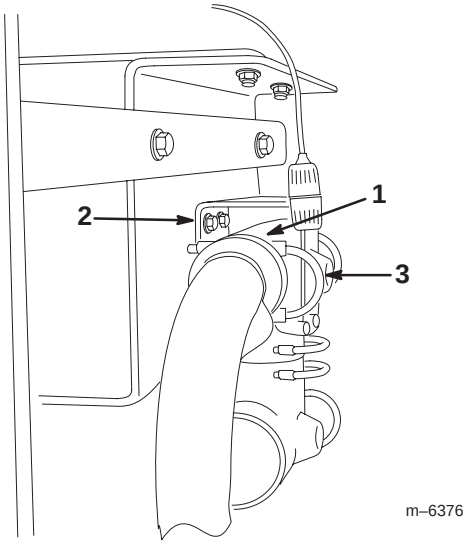

Figure 10

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).

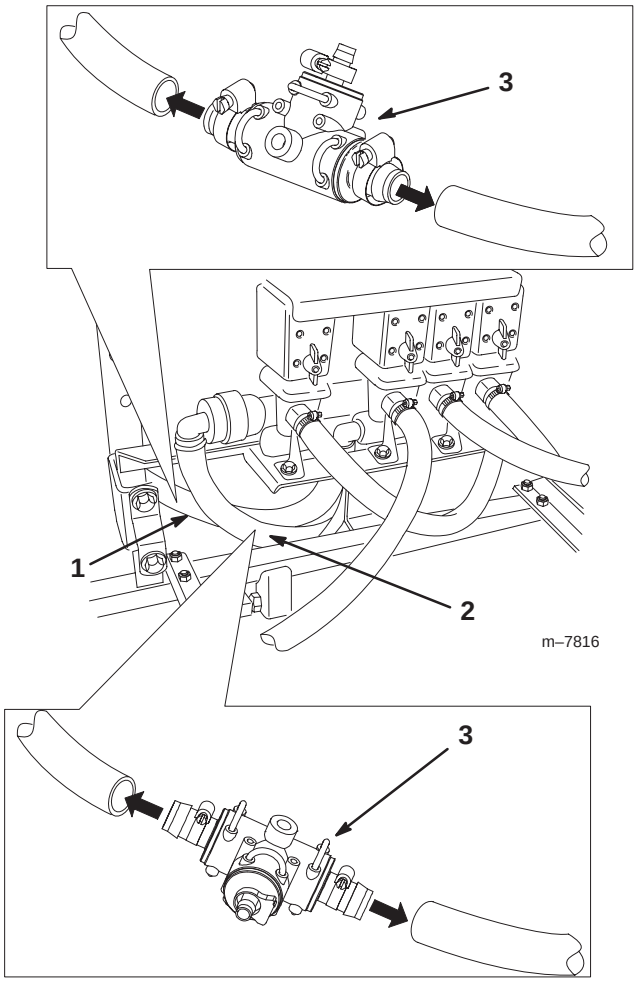

Figure 11

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, 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, 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).

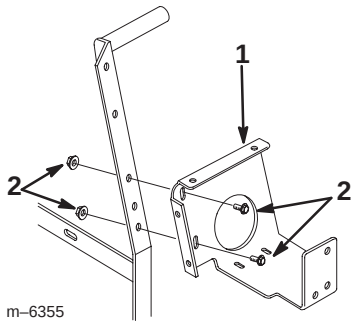

Figure 12

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).

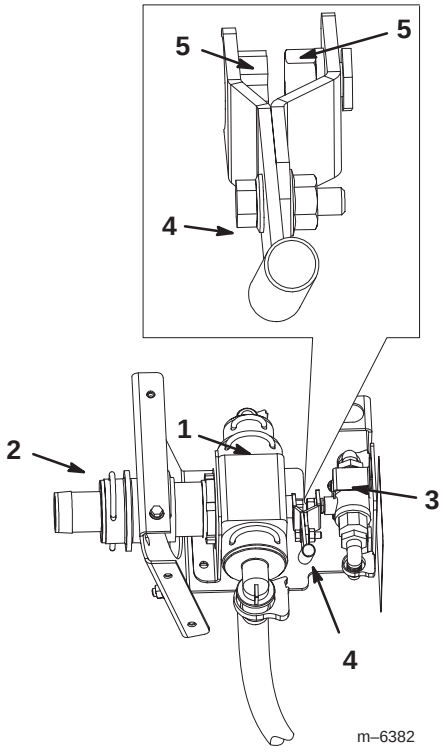

Figure 13

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).

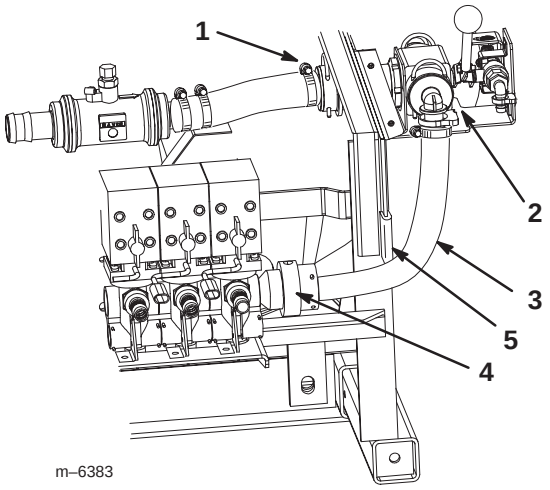

Figure 14

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

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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. If you have an older model unit, you will have to cut the hold in assembly to allow clearance for hose (Fig. 15).

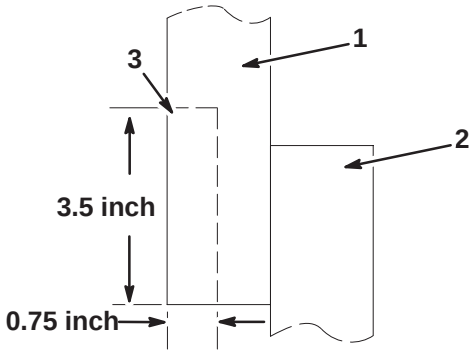

Figure 15

View from right side of vehicle

1. Boom hold in
2. Boom upright
3. Cut out section

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9. File the corners created by cutting the hold in assembly so the sharp edges will not cut the hose.

10. 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).

11. 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.

12. Connect the large hose to the control valve (Fig. 14).

13. Place the rubber trim piece over the frame edge to protect the hose (Fig. 14).

14. 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. 16).

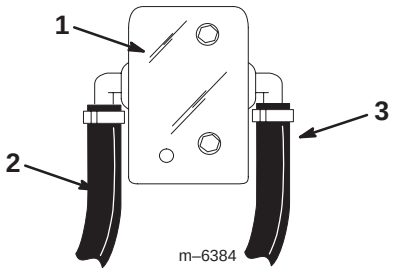

Figure 16

1. Right side of the control box mounting bracket
2. From agitation hose
3. From by-pass hose

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15. Cut the hose to the appropriate length to remove excess slack and then connect the hose to the rear fitting.

16. Secure the hose to the fittings using 2 small hose clamps.

17. 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. 16).

18. Cut the hose to the appropriate length to remove excess slack and then connect the hose to the front fitting.

19. Secure the hose to the fittings using 2 small hose clamps.

20. 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. 17).

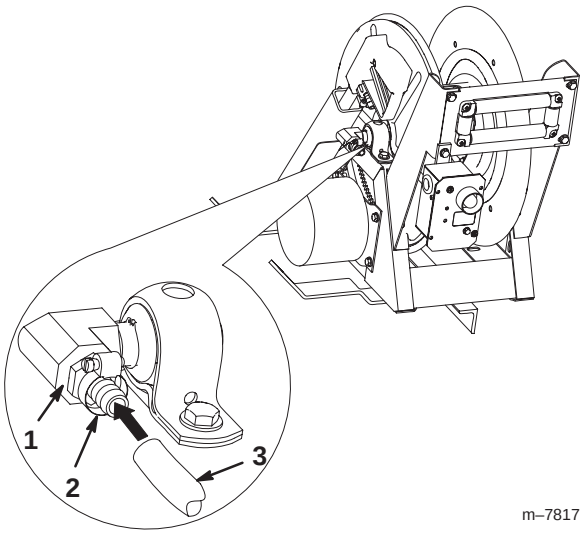


Figure 17

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

21. Connect a 1/2 inch hose to the open fitting on the control valve assembly (Fig. 18).

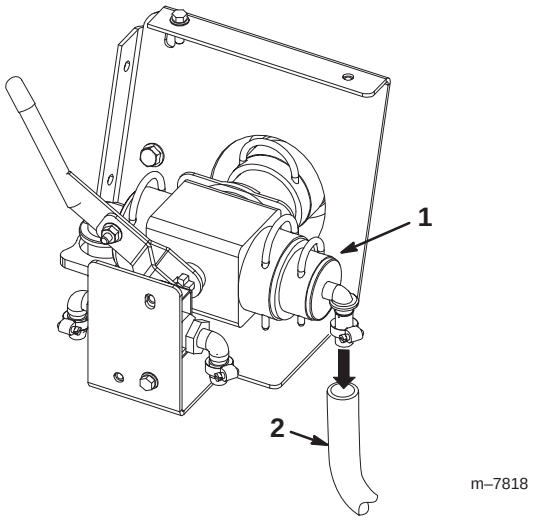


Figure 18

1. Control valve assembly
2. Hose

22. Connect the end of the hose to the fitting on the hose reel (Fig. 17) and secure both ends with 2 small hose clamps.

23. Use a cable tie to secure the hose to tank saddle slot.

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. 19).

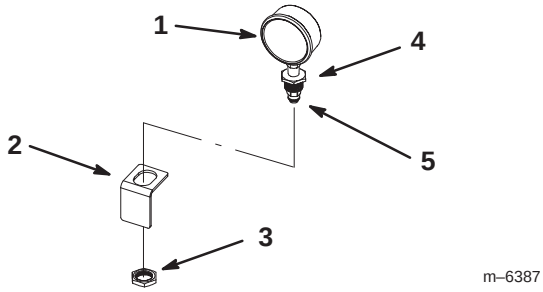


Figure 19

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. 19).

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. 19).

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. 20). 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.

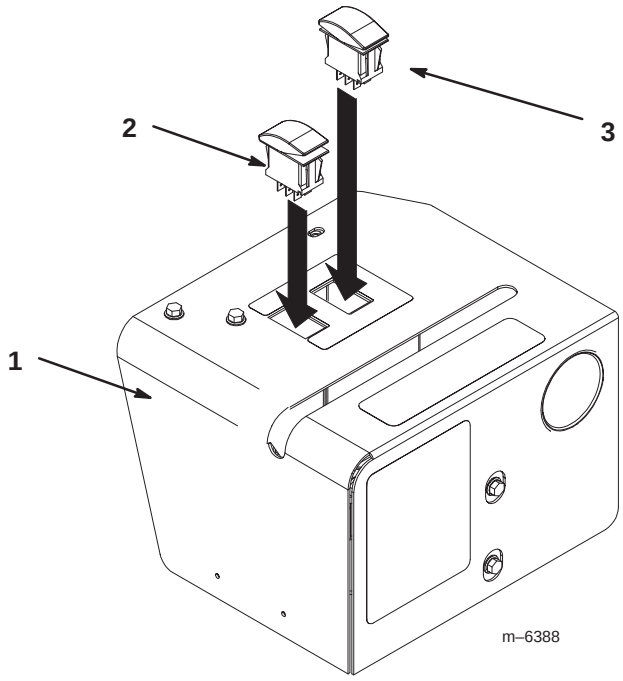


Figure 20

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. 21).

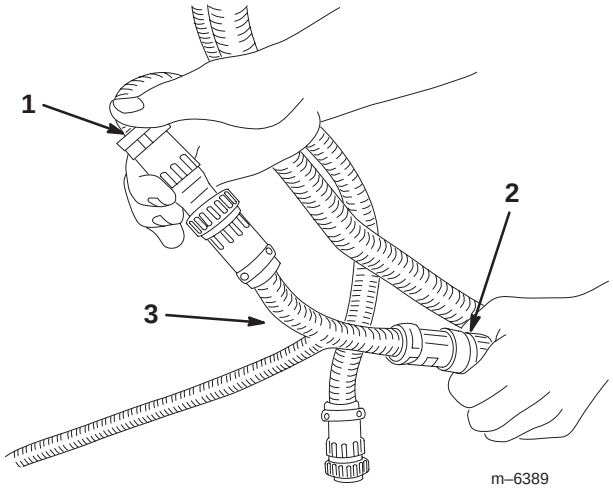


Figure 21

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

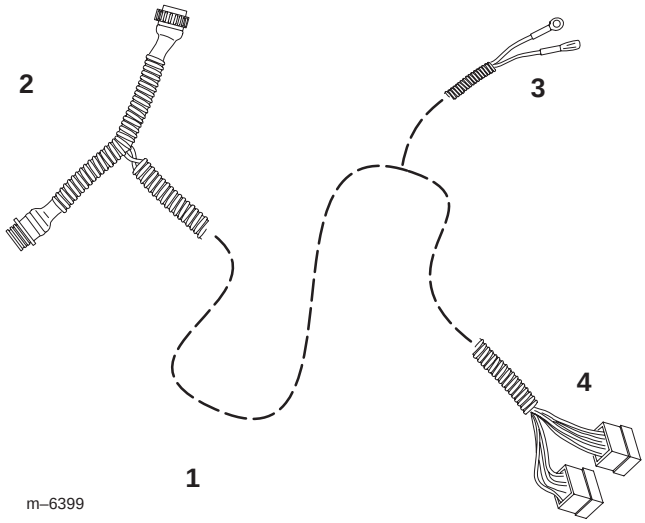


Figure 22

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. 21 and 22).

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. 23 and 24).

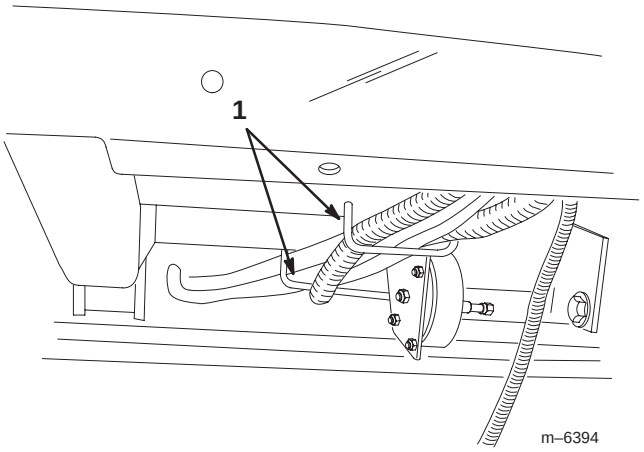


Figure 23

1. Wire harness rings

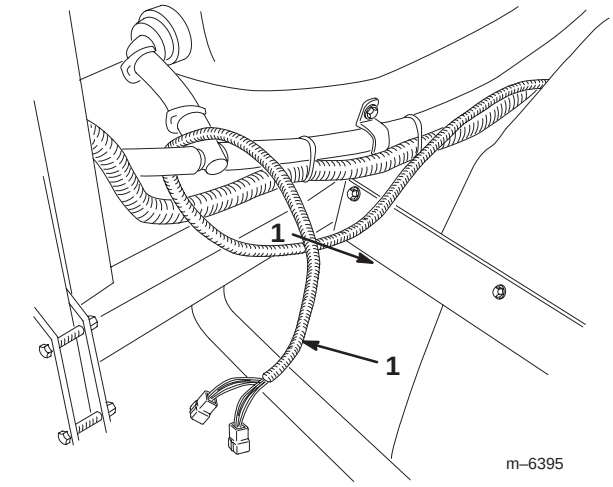


Figure 24

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. 22 and 25).

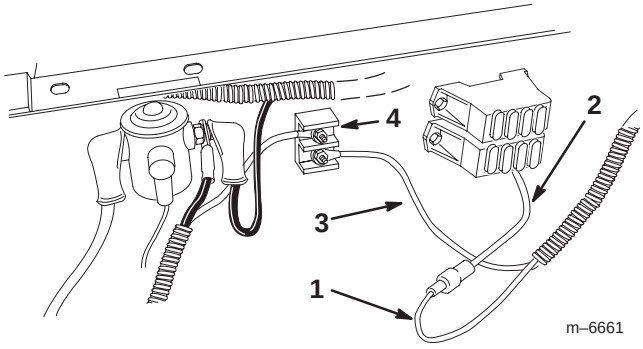


Figure 25

1. Middle lead with a spade connector
2. Open position on the fuse block
3. Middle lead with an eye-ring connector
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. 25).

13. Connect the connector with mostly green and yellow wires to the spray selection switch (toggle style switch) (Fig. 26).

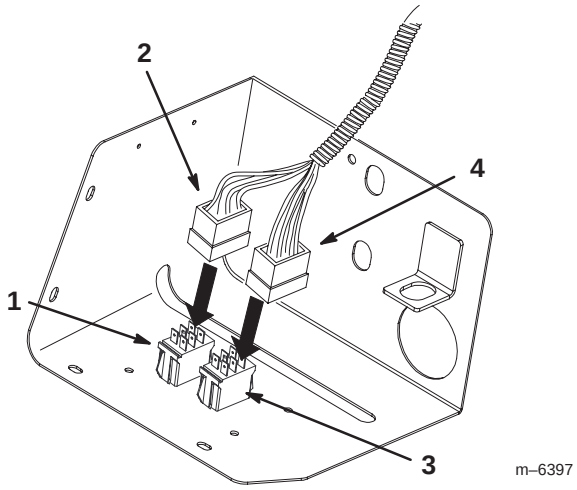


Figure 26

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

14. Connect the connector with the multi-colored wires to the rate control switch (momentary switch) (Fig. 26).

15. Install the switch wire cover over the switches and around the wires (Fig. 27) and secure it with 4 flange-head bolts (1/4 x 3/4 inch) and 4 flange nuts (1/4 inch).

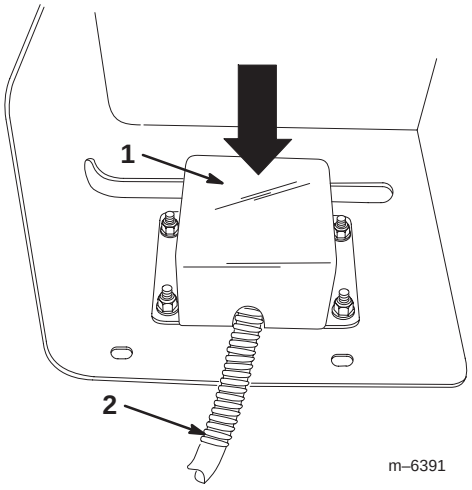


Figure 27

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. 28), using 5 flange-head bolts (1/4 x 3/4 inch).

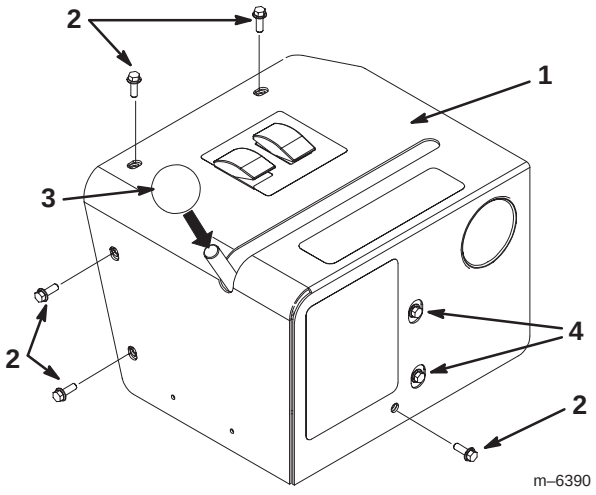


Figure 28

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

18. Install the knob onto the valve control lever (Fig. 28).

19. If necessary, loosen bolts on the front panel and reposition valve assembly to allow free travel of the lever in the slot (Fig. 28).

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. 29).

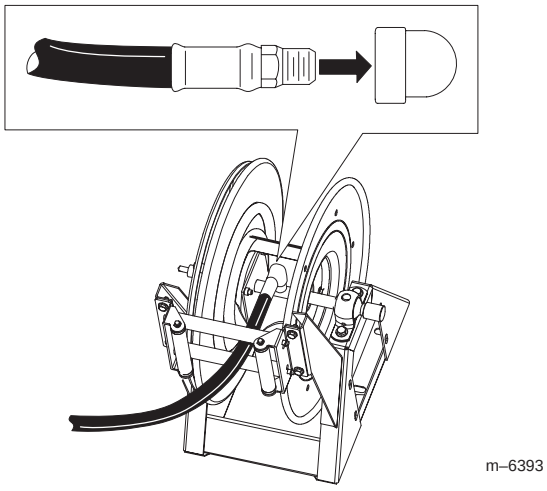


Figure 29

2. Connect the free end of the long hose to the fitting on the gun (Fig. 30).

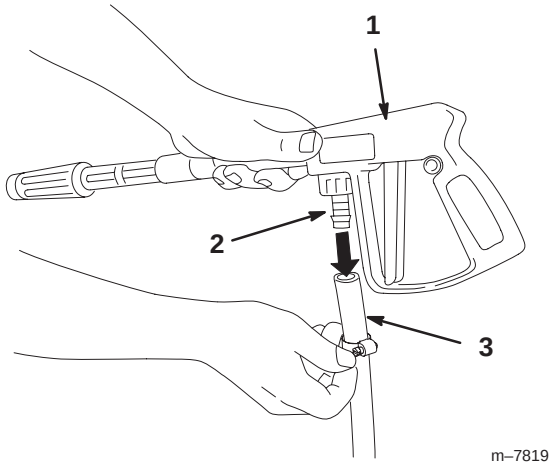


Figure 30

1. Spray gun
2. Hose fitting
3. Hose

3. Secure the end of the hose with a small worm 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*.

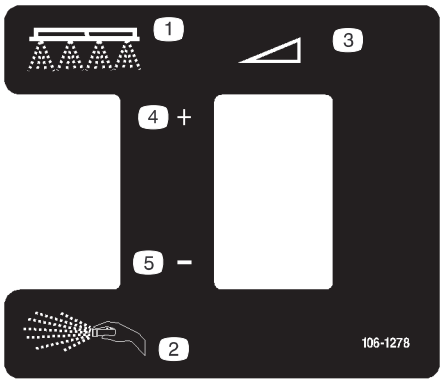
- Do not aim the hand sprayer at any person or animal. Fluids under high pressure can penetrate skin and cause severe injury, possibly resulting in amputation or death. Hot liquids and chemicals can also cause burns or injury. If any part of the body comes in contact with the spray stream, immediately consult a physician familiar with injected fluid injuries.
- Do not place your hand or any other part of you 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

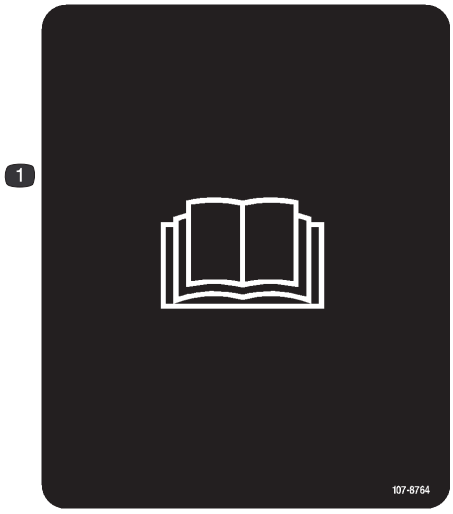


106-1278

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

107-8757

1. Hose reel rewind; push to engage.



107-8764

1. Read the *Operator's Manual* for more information.

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.**

Turf Care Precautions While Operating in Stationary Modes

Important Under some conditions, heat from the engine, radiator, and muffler can potentially damage grass when operating the sprayer in a stationary mode. Stationary modes include tank agitation, hand spraying, or using a walking boom.

Use the following precautions:

- **Avoid** stationary spraying when conditions are very hot and/or dry, as turf can be more stressed during these periods.
- **Avoid** parking on the turf while stationary spraying. Park on a cart path whenever possible.
- **Minimize** the amount of time the machine is left running over any particular area of turf. Both time and temperature affect how much the grass may be damaged.
- **Set the engine speed as low as possible** to achieve the desired pressure and flow. This will minimize the heat generated and the air velocity from the cooling fan.
- **Allow heat to escape** upward from the engine compartment by raising the engine guard/seat assemblies during stationary operation rather than being forced out under the vehicle. Refer to your *Operator's Manual* for more information on raising the seat assemblies.

Note: Use a **heat shield blanket** underneath the vehicle during stationary operation if additional heat protection is desired. Contact your Authorized Toro Dealer to obtain a Toro Heat Shield Blanket kit, for turf sprayers.

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. Set the throttle 25 percent of the way toward the Fast position.
3. Ensure that the pump switch is on and the Pro Control™ (if applicable) is set in the manual 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. 31).

Note: Hose reel accessories that require flows greater than 7 GPM may have reduced performance. The level of performance experienced by the operator is dependant upon accessory pressure required, accessory speed and other adjustable variables. For most reasonable settings, attachments will meet and exceed operator requirements. Please consult you nozzle selection guide for further information.

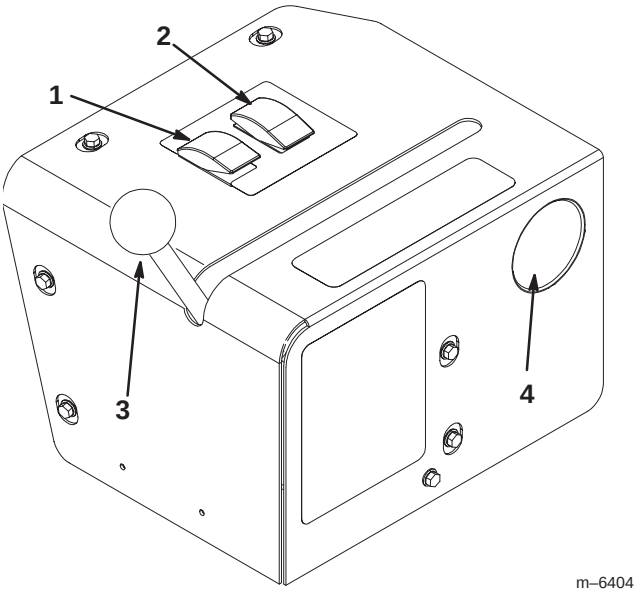


Figure 31

1. Spray selection switch
2. Rate control switch
3. Valve control lever
4. Pressure gauge

6. Move the valve control lever forward to the hand spray position (Fig. 31).

7. Adjust the rate control switch and the throttle to increase or decrease the pressure, as read on the pressure gauge, to the desired setting (Fig. 31).

   Note: Use the lowest throttle setting possible to achieve the desired pressure. This can be achieved by setting the pressure to maximum with the rate control switch and then adjusting the throttle speed until the desired pressure is obtained.

   Note: The maximum recommended operating pressure of the hose reel kit 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 rate control switch to reduce the pressure until the pump stops.

⚠ 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. Move the valve lever rearward to the boom spray position.
3. Set the spray selection switch 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. Press the rewind button on the hose reel until only a few feet of hose is out of the reel.
6. Return the spray gun to the holder on the back of the reel.

Important An unsecured hose may catch objects and damage the hose reel.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