



Hose Reel Kit for Workman® 200 Spray Systems

Model No. 41097—Serial No. 240000001 and Up

Form No. 3351-333 Rev A

Installation Instructions

Installation

Important You will need to purchase Teflon tape before installing this kit. The tape is used to wrap threads of fittings before assembly. Threads should be wrapped from left to right, starting at the base and traveling to the tip of fitting (if looking down the axis of a fitting, tape should be wrapped clockwise from back to front).

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

Description	Qty.	Use
Hose reel frame	1	Assembling the frame
Flange-head bolt, 1/2 x 1-1/4 inch	4	
Flange nut, 1/2 inch	4	
Hose reel assembly	1	
Bolt, 5/16 x 1 inch	4	
Washer	4	
Flange nut, 5/16 inch	5	
Electrical box	1	
Flange-head bolt, 5/16 x 1 inch	1	
Plastic tie	10	
Control valve	1	Installing the control valve
Control valve bracket	1	
Phillips screw	2	
Support bracket	1	
Flange-head bolt, 1/4 x 3/4 inch	2	
Flange nut, 1/4 inch	2	
Pressure gauge	1	
Retainer	1	
O-ring, large	2	
Adapter	1	
Plastic nut, large	1	
Tee	1	
Reducing nipple	1	
Reducer assembly	1	
Plastic nut, medium	1	
Plastic nut, small	1	
Short hose with fitting, 1/2 inch dia.	1	

Description	Qty.	Use
Long hose with fitting, 1/2 inch dia	1	Connect the spray hose
Spray gun	1	
Plastic hose clamp, small	1	

Note: If you are installing this kit on a sprayer with a covered boom kit, you will need additional parts and instructions; contact your Authorized Toro Distributor for more information.

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; refer to your vehicle *Operator's Manual* for instructions.
2. Disconnect the negative battery terminal from the battery.

Assembling the Frame

1. Install the hose reel frame to the boom frame supports using 4 flange-head bolts (1/2 x 1-1/4 inch) and 4 flange nuts (1/2 inch) (Fig. 1).

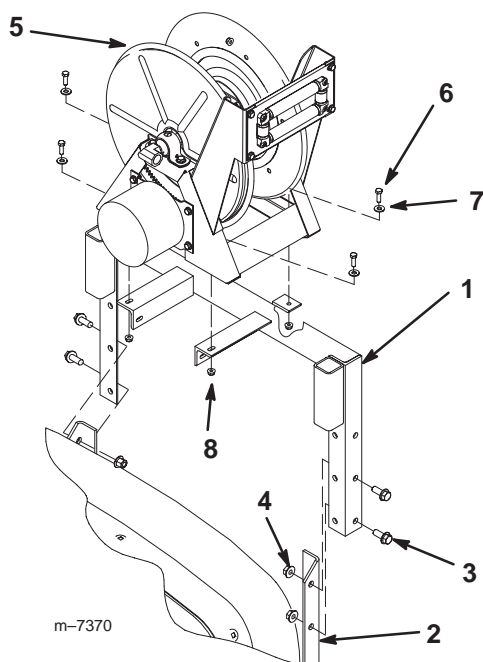


Figure 1

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|---------------------------------------|---------------------------|
| 1. Hose reel frame | 5. Hose reel assembly |
| 2. Boom frame supports | 6. Bolt, 5/16 x 1 inch |
| 3. Flange-head bolt, 1/2 x 1-1/4 inch | 7. Washer |
| 4. Flange nut, 1/2 inch | 8. Flange nut (5/16 inch) |

2. Install the hose reel assembly onto the hose reel frame (Fig. 1) using 4 bolts (5/16 x 1 inch), 4 washers, and 4 flange nuts (5/16 inch).
3. 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. 2), using a flange-head bolt (5/16 x 1 inch) and a flange nut (5/16 inch).

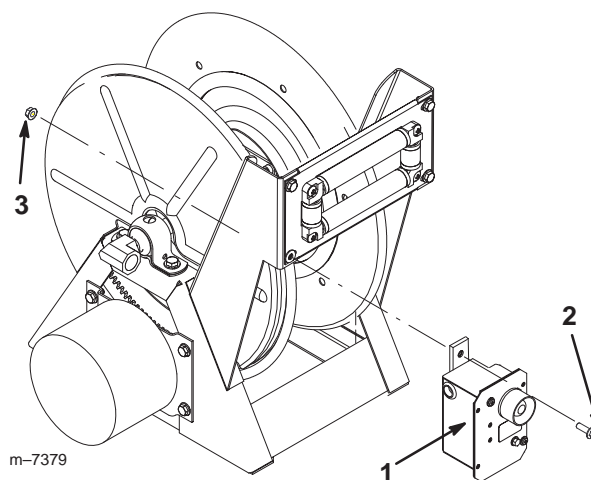


Figure 2

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

4. Route the wiring harness under the tank and into the engine compartment.
5. Raise the sprayer.
6. Secure the wiring harness to the existing wires and hoses to remove any slack using plastic ties included in the kit.

Important Ensure that you secure the wiring harness away from any hot or moving parts.

7. Connect the red power wire to the front of the solenoid (Fig. 3), located on the left side of the engine.

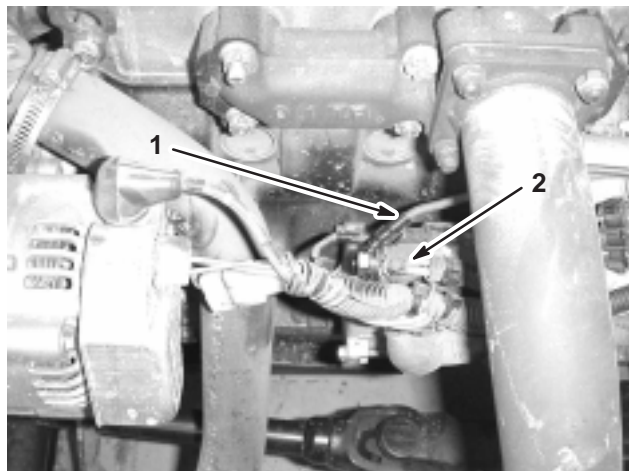


Figure 3

1. Red power wire from the electrical box on the hose reel.
2. Solenoid

8. Connect the black wire to a ground terminal, located on the back of the engine.

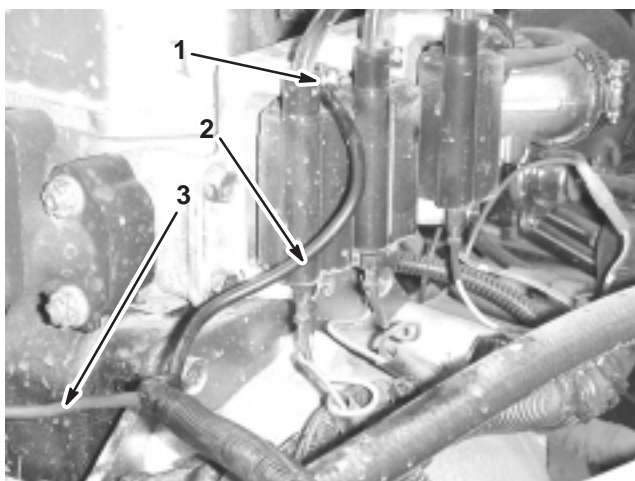


Figure 4

1. Ground terminal
2. Black wire
3. Red wire to the solenoid

Installing the Control Valve

1. Remove the hose retainer to disconnect the boom hose from the supply tee (Fig. 5).

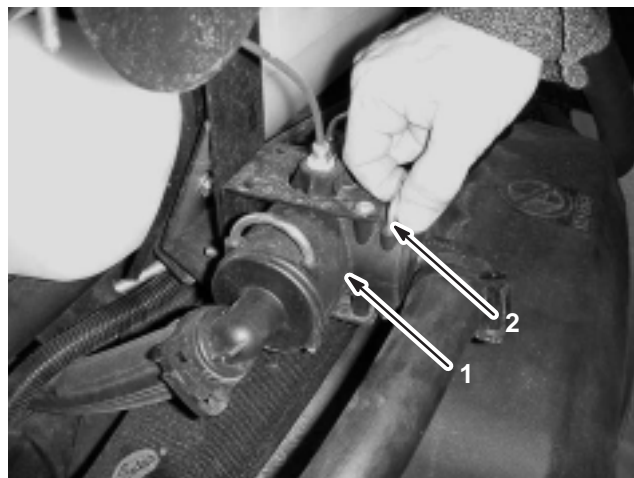


Figure 5

1. Supply tee
2. Hose retainer

Note: The small tube and fitting on top of the supply tee shown in Figures 5 and 6 is not present on Workman 200 Spray Systems.

2. Remove the 2 bolts securing the supply tee and supply tee mounting bracket to the vehicle (Fig. 6).



Figure 6

1. Supply tee mounting bracket

3. Install the new control valve into the open port on the supply tee and secure it with a new retainer (Fig. 7).

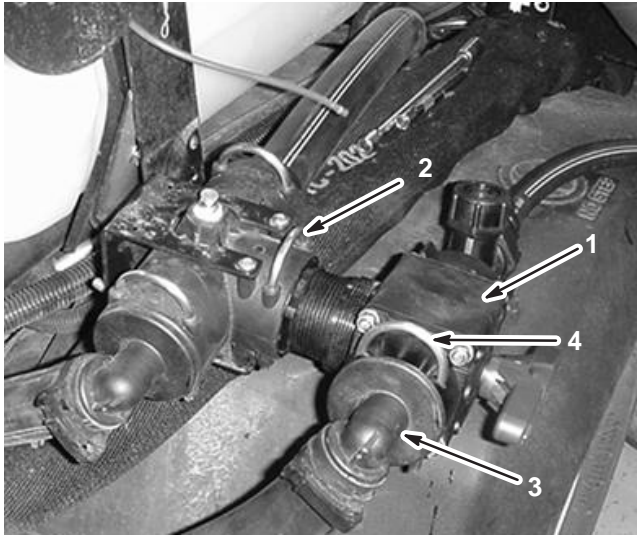


Figure 7

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|-----------------------|--------------------------------|
| 1. Control Valve | 3. Boom hose |
| 2. Retainer ring, new | 4. Retainer ring, pre-existing |

4. Connect the boom hose you disconnected in step 1 to the open port on the control valve and secure it with the retainer you removed in step 1 (Fig. 7).
5. Remove the 2 screws securing the upper tee and install the support bracket (Fig. 8) using the screws, 2 flange-head bolts (1/4 x 3/4 inch,) and 2 flange nuts (1/4 inch).

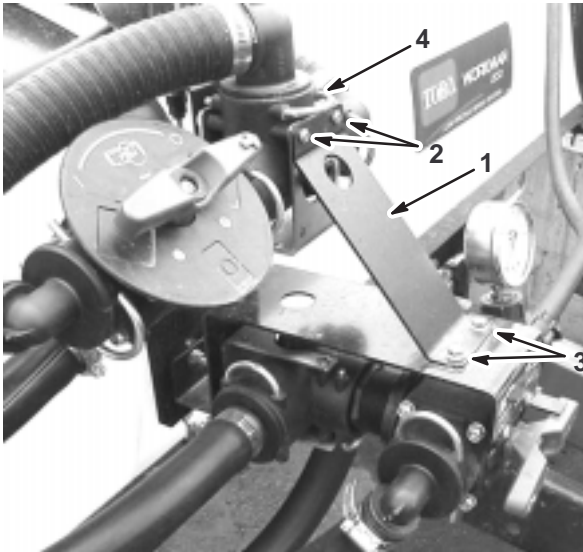


Figure 8

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|--|--------------|
| 1. Support bracket | 4. Upper tee |
| 2. Screws | |
| 3. Flange-head bolt, 1/4 x 3/4 inch and flange nut, 1/4 inch | |

6. Lightly oil the O-rings in the kit with vegetable oil.
7. Connect the adapter to the valve using the large plastic nut (Fig. 9).

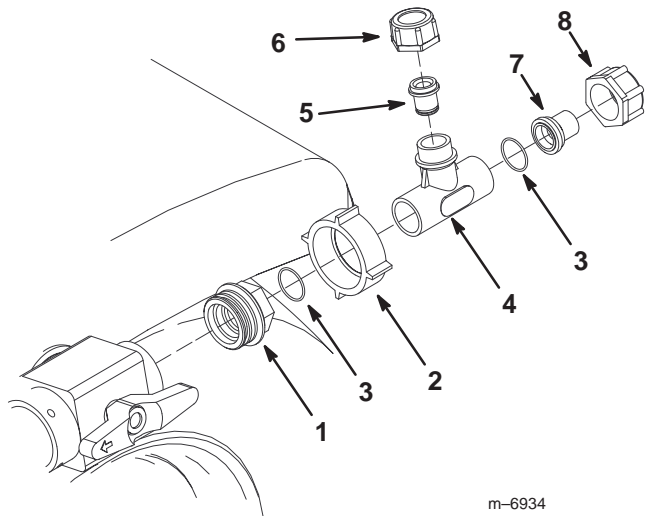


Figure 9

- | | |
|----------------------|------------------------|
| 1. Adapter | 5. Reducer assembly |
| 2. Large plastic nut | 6. Plastic nut, small |
| 3. Large O-ring | 7. Reducer nipple |
| 4. Tee | 8. Plastic nut, medium |
8. Connect a large O-ring and tee to the adapter (Fig. 9).
 9. Connect the reducer assembly to the top of the tee (Fig. 9) using the small plastic nut.
 10. Connect a large O-ring and the reducer nipple to the tee (Fig. 9) using the medium plastic nut.
 11. Wrap Teflon tape counterclockwise around the threads of the gauge (Fig. 10).

12. Install the pressure gauge into the open port to the right of the control valve (Fig. 10).

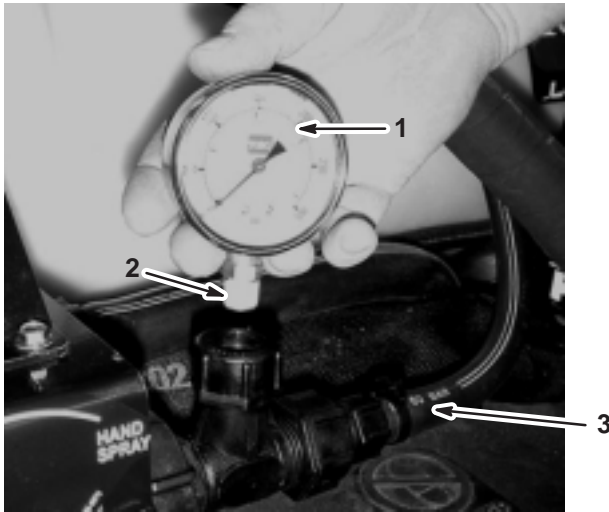


Figure 10

1. Pressure gauge
2. Wrapped threads
3. Short hose

13. Connect the threaded fitting on the end of the hose connected to the side of the hose reel to the control valve assembly (Fig. 10).

Connecting the Spray Hose

1. Wrap Teflon tape around the threads of the hose fitting on the long hose and install the fitting into the connecting tube on the reel (Fig. 11).

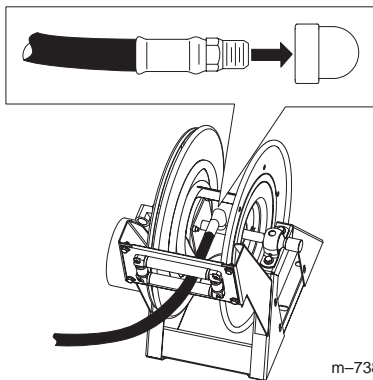


Figure 11

2. Connect the free end of the long hose to the fitting on the gun (Fig. 12).

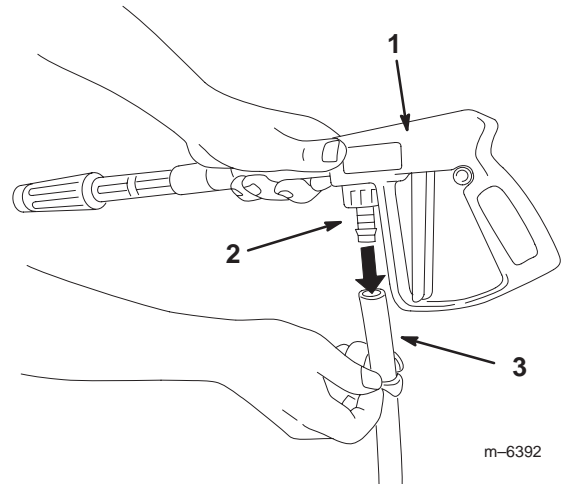


Figure 12

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*.

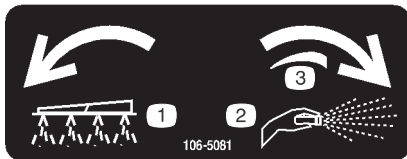
- Do not aim the hand sprayer at any person or animal. Fluids under high pressure can penetrate skin and cause severe injury, possibly resulting in amputation or death. Hot liquids and chemicals can also cause burns or injury. If any part of the body comes in contact with the spray stream, immediately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



106-5081

- | | |
|---------------|--------------------------------|
| 1. Boom spray | 3. Continuous variable setting |
| 2. Hand spray | |



107-8757

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|--------------------------------------|
| 1. Hose reel rewind; push to engage. |
|--------------------------------------|

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 trigger lock on the spray gun is locked.
3. Turn the red knob on the face of the control valve to the Hand Spray position.
4. Turn the booms off.
5. Use the application rate switch to adjust the application rate to the highest setting.
6. Turn the pump on.
7. Increase the engine speed until the pressure gauge reads 150 psi and set it at that speed.

Important Do not use a pressure setting higher than 150 psi with the hand sprayer.

Note: Use the pressure gauge to the right of the control valve while turning the red knob to achieve the desired amount of pressure at hand sprayer.

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. Turn the red nob on the face of the control valve to the Boom Spray position.
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. Return the spray gun to the holder on the back of the reel.
5. Return the engine to idle speed and stop the pump.

Important Ensure that you flush the spray gun with fresh clean water during your daily cleaning routine (refer to your sprayer *Operator's Manual*).

