



**Advanced Performance. Total Reliability.**

## Owner's Manual

Do not use this equipment  
before reading this manual!

# ADVANTAGE 400

## Electric Piston Pump



**Model Numbers:**

**Stand**

**Upright Cart**

**Lowboy Cart**

**0552054**

**0552071**

**0552072**

**NOTE:** This manual contains important warnings and instructions. Please read and retain for reference.

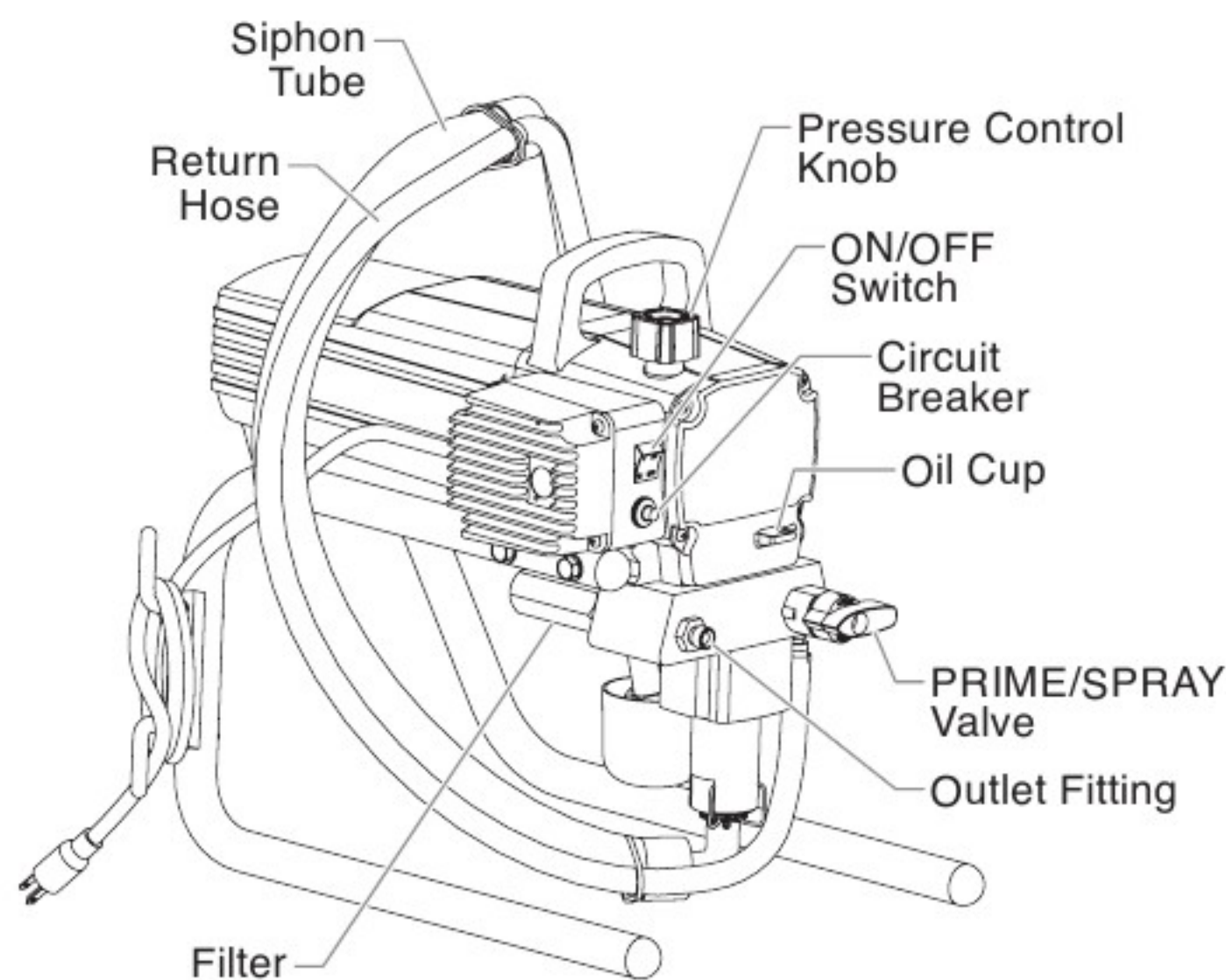


## Table of Contents

<b>Safety Precautions</b> .....	<b>2</b>
<b>Specifications</b> .....	<b>3</b>
<b>General Description</b> .....	<b>4</b>
<b>Operation</b> .....	<b>4</b>
Setup .....	4
Preparing to Paint.....	4
Painting .....	5
Pressure Relief Procedure .....	6
<b>Spraying</b> .....	<b>6</b>
Spraying Technique .....	6
Practice .....	6
<b>Cleanup</b> .....	<b>7</b>
Cleaning the Spray Tip.....	7
<b>Maintenance</b> .....	<b>7</b>
General Repair and Service Notes.....	7
Replacing the PRIME/SPRAY Valve.....	8
Replacing the Filters.....	8
Replacing the Motor Assembly.....	8
Replacing the Motor Brushes.....	9
Replacing the Gears.....	9
Replacing the Transducer .....	10
Servicing the Fluid Section.....	10
<b>Troubleshooting</b> .....	<b>12</b>
<b>Parts List</b> .....	<b>18</b>
Main Assembly .....	18
Motor Assembly.....	19
Suction Set Assembly .....	19
Labels.....	19
Gear Box Assembly.....	20
Stand Assembly .....	21
Upright Cart Assembly .....	21
Fluid Section Assembly .....	22
Low Boy Cart Assembly .....	23
Electrical Schematic.....	23
Accessories.....	24
<b>Limited Warranty</b> .....	<b>24</b>

## General Description

This airless sprayer is a precision power tool used for spraying many types of materials. Read and follow this Owner's Manual carefully for proper operating instructions, maintenance, and safety information.



## Operation



**This equipment produces a fluid stream at extremely high pressure. Read and understand the warnings in the Safety Precautions section at the front of this manual before operating this equipment.**

## Setup

Perform the following procedure before plugging in the power cord of an electric unit.

1. Ensure that the siphon tube and the return hose are attached and secure.
2. Using a wrench, attach a minimum of 50' of 1/4" airless spray hose to the outlet fitting on the sprayer. Tighten securely.
3. Attach an airless spray gun to the spray hose. Using two wrenches (one on the gun and one on the hose), tighten securely.

**NOTE: Do not attach the tip to the spray gun yet. Remove the tip if it is already attached.**



**Make sure all airless hoses and spray guns are electrically grounded and rated at or above the maximum operating pressure range of the airless sprayer.**

4. Make sure the pressure control knob is turned fully counterclockwise to its lowest pressure setting.
5. Make sure the ON/OFF switch is in its OFF position.
6. Fill the oil cup with approximately one tablespoon of separating oil (P/N 314-481).

**IMPORTANT: Never operate unit for more than ten seconds without fluid. Operating this unit without fluid will cause unnecessary wear to the packings.**

7. Make sure the electrical service is 120V, 15 amp minimum.
8. Plug the power cord into a properly grounded outlet at least 25' from the spray area.

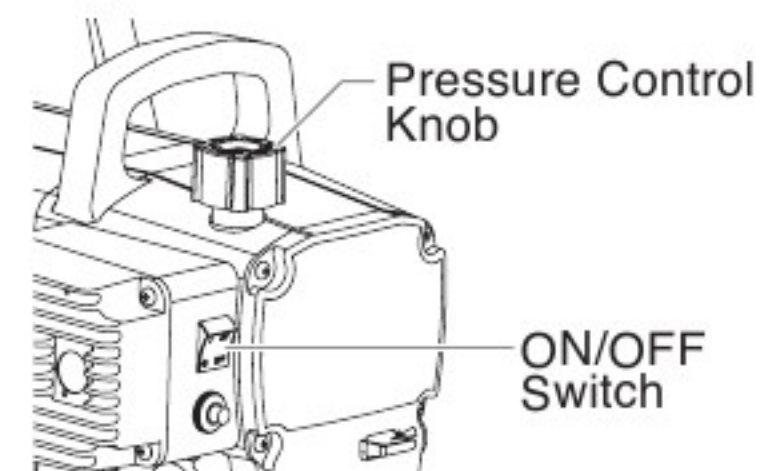
**IMPORTANT: Always use a minimum 12 gauge, three-wire extension cord with a grounded plug. Never remove the third prong or use an adapter.**

## Preparing a New Sprayer

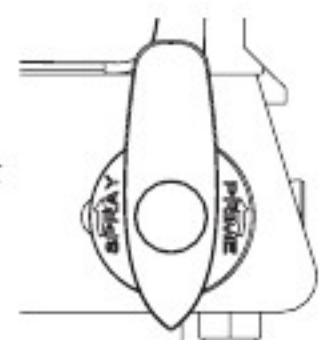
If this sprayer is new, it is shipped with test fluid in the fluid section to prevent corrosion during shipment and storage. This fluid must be cleaned out of the system thoroughly with mineral spirits before spraying paint.

**IMPORTANT: Always keep the trigger lock on the spray gun in the locked position while preparing the system.**

1. Place the siphon tube into a container of mineral spirits.
2. Place the return hose into a metal waste container.
3. Set the pressure to minimum by turning the pressure control knob fully counterclockwise.



4. Move the PRIME/SPRAY valve down to the PRIME position.
5. Turn on the sprayer by moving the ON/OFF switch to the ON position.
6. Allow the sprayer to run for 15–30 seconds to flush the test fluid out through the return hose and into the waste container.
7. Turn off the sprayer by moving the ON/OFF switch to the OFF position.





## Preparing to Paint

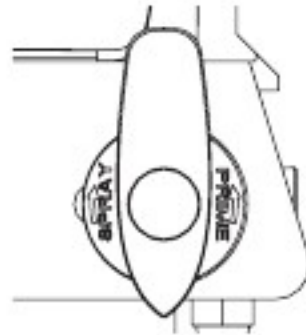
Before painting, it is important to make sure that the fluid in the system is compatible with the paint that is going to be used.

**NOTE:** Incompatible fluids and paint may cause the valves to become stuck closed, which would require disassembly and cleaning of the sprayer's fluid section.

**IMPORTANT:** Always keep the trigger lock on the spray gun in the locked position while preparing the system.

1. Place the siphon tube into a container of the appropriate solvent. Examples of the appropriate solvent are water for latex paint or mineral spirits for oil-based paints.
2. Place the return hose into a metal waste container.
3. Set the pressure to minimum by turning the pressure control knob fully counterclockwise.
4. Move the PRIME/SPRAY valve down to the PRIME position.

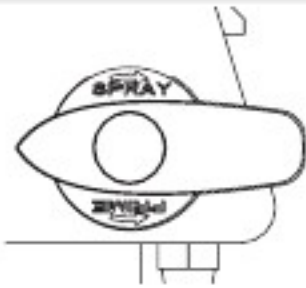
**NOTE:** Hold the return hose in the waste container when moving the PRIME/SPRAY valve to PRIME in case the sprayer is pressurized.



5. Turn on the sprayer by moving the ON/OFF switch to the ON position.
6. Allow the sprayer to run for 15–30 seconds to flush the old solvent out through the return hose and into the metal waste container.
7. Turn off the sprayer by moving the ON/OFF switch to the OFF position.

**NOTE:** Make sure that the spray gun does not have a tip or tip guard installed.

8. Move the PRIME/SPRAY valve up to the SPRAY position.
9. Turn on the sprayer.
10. Unlock the gun by turning the gun trigger lock to the unlocked position.



**!** Ground the gun by holding it against the edge of the metal container while flushing. Failure to do so may lead to a static electric discharge, which may cause a fire.

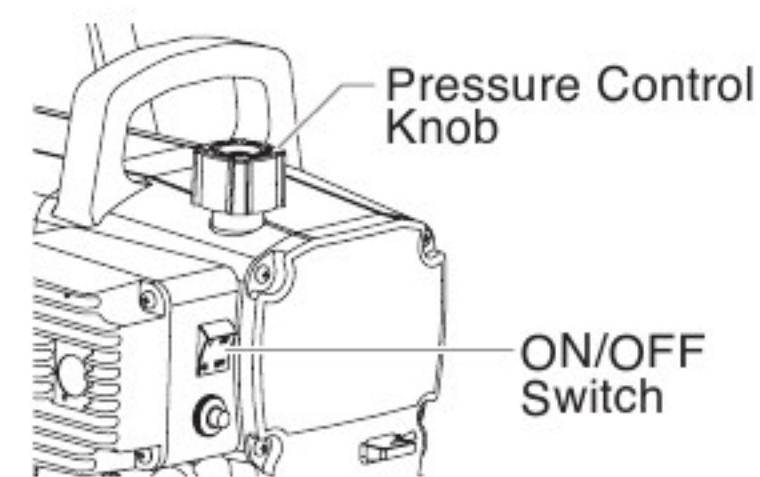


11. Trigger the gun into the metal waste container until the old solvent is gone and fresh solvent is coming out of the gun.
12. Lock the gun by turning the gun trigger lock to the locked position.
13. Set down the gun and increase the pressure by turning the pressure control knob slowly clockwise.
14. Check the entire system for leaks. If leaks occur, turn the unit off and follow the "Pressure Relief Procedure" in this manual before tightening any fittings or hoses.
15. Follow the "Pressure Relief Procedure" in this manual before changing from solvent to paint.

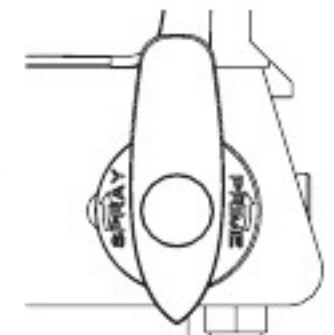
**!** Be sure to follow the pressure relief procedure when shutting down the sprayer for any purpose, including servicing or adjusting any part of the spray system, changing or cleaning spray tips, or preparing for cleanup.

## Painting

1. Place the siphon tube into a container of paint.
2. Place the return hose into a metal waste container.
3. Set the pressure to minimum by turning the pressure control knob fully counterclockwise.

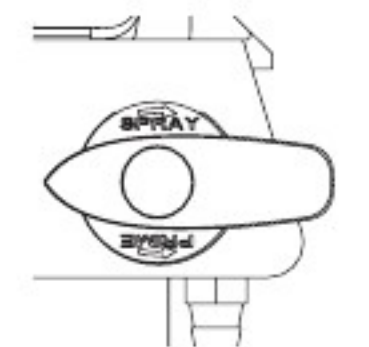


4. Move the PRIME/SPRAY valve down to the PRIME position.

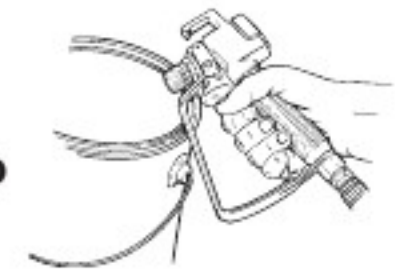


**NOTE:** Hold the return hose in the waste container when moving the PRIME/SPRAY valve to PRIME in case the sprayer is pressurized.

5. Turn on the sprayer by moving the ON/OFF switch to the ON position.
6. Allow the sprayer to run until paint is coming through the return hose into the metal waste container.
7. Turn off the sprayer by moving the ON/OFF switch to the OFF position.
8. Remove the return hose from the waste container and place it in its operating position above the container of paint.
9. Move the PRIME/SPRAY valve up to the SPRAY position.
10. Turn on the sprayer.
11. Unlock the gun by turning the gun trigger lock to the unlocked position.



**!** Ground the gun by holding it against the edge of the metal container while flushing. Failure to do so may lead to a static electric discharge, which may cause a fire.



12. Trigger the gun into the metal waste container until all air and solvent is flushed from the spray hose and paint is flowing freely from the gun.
  13. Lock the gun by turning the gun trigger lock to the locked position.
  14. Turn off the sprayer.
  15. Attach tip guard and tip to the gun as instructed by the tip guard or tip manuals.
- !** POSSIBLE INJECTION HAZARD. Do not spray without the tip guard in place. Never trigger the gun unless the tip is in either the spray or the unclog position. Always engage the gun trigger lock before removing, replacing or cleaning tip.
16. Turn on the sprayer.
  17. Increase the pressure by turning the pressure control knob slowly clockwise and test the spray pattern on a piece of cardboard. Adjust the pressure control knob until the spray from the gun is completely atomized. Try to keep the pressure control knob at the lowest setting that maintains good atomization.

**NOTE:** Turning the pressure up higher than needed to atomize the paint will cause premature tip wear and additional overspray.

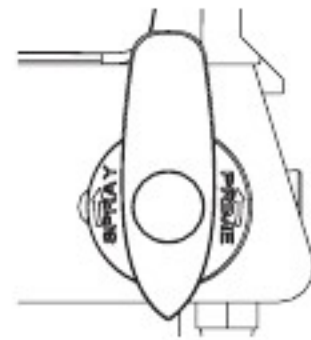


## Pressure Relief Procedure



Be sure to follow the pressure relief procedure when shutting the unit down for any purpose, including servicing or adjusting any part of the spray system, changing or cleaning spray tips, or preparing for cleanup.

1. Lock the gun by turning the gun trigger lock to the locked position.
2. Turn off the sprayer by moving the ON/OFF switch to the OFF position.
3. Set the pressure to minimum by turning the pressure control knob fully counterclockwise.
4. Unlock the gun by turning the gun trigger lock to the unlocked position.
5. Hold the metal part of the gun firmly to the side of a metal container to ground the gun and avoid a build up of static electricity.
6. Trigger the gun to remove any pressure that may still be in the hose.
7. Lock the gun by turning the gun trigger lock to the locked position.
8. Move the PRIME/SPRAY valve down to the PRIME position.

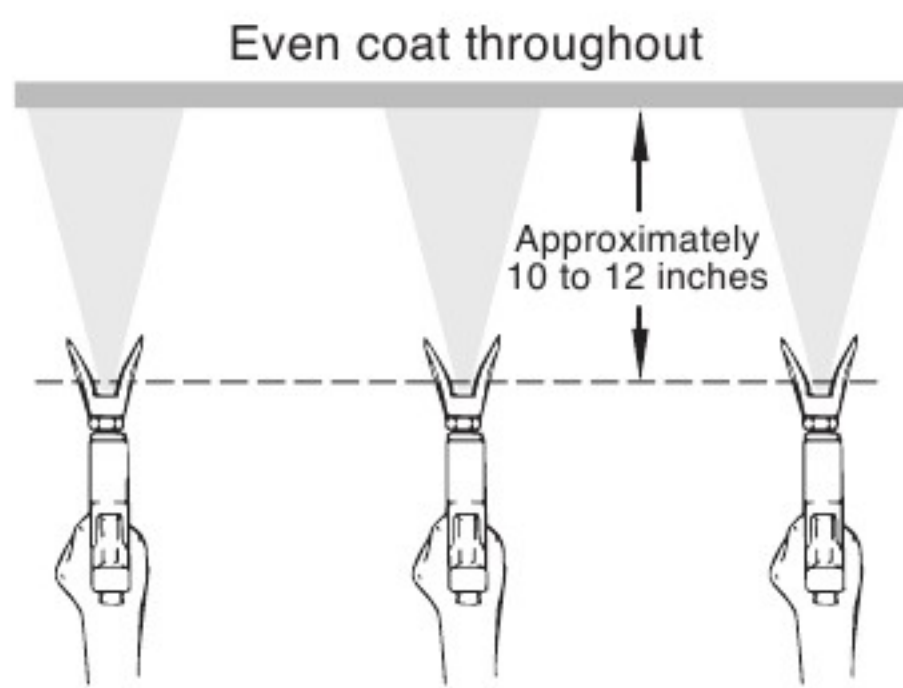


## Spraying

**NOTE:** When spraying block filler, mastics or high solid coating, remove the gun filter and high pressure filter screens.

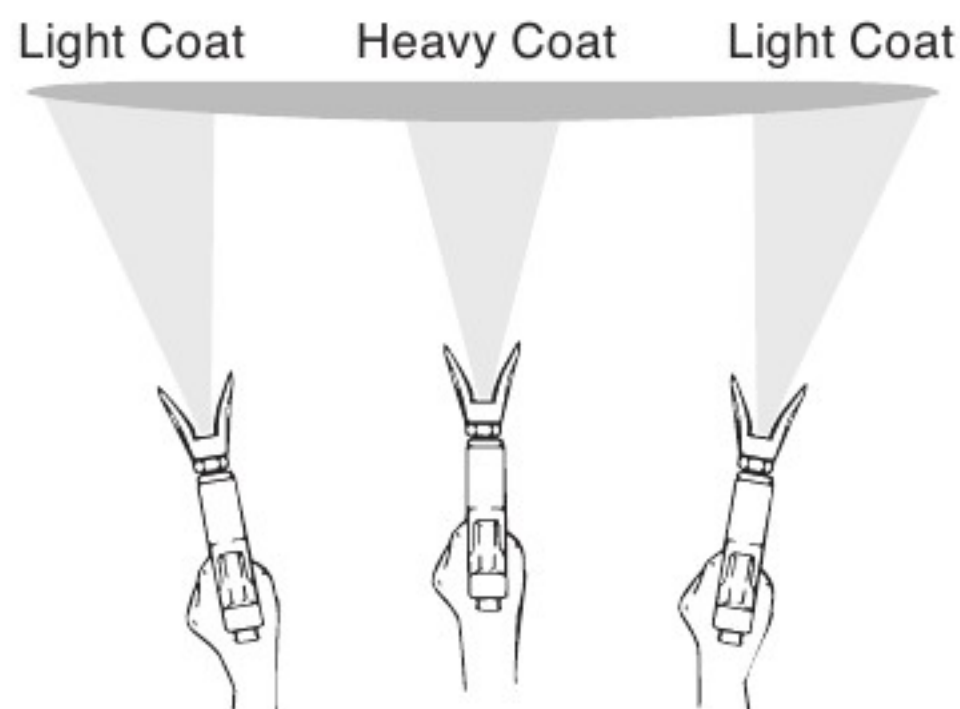
### Spraying Technique

The key to a good paint job is an even coating over the entire surface. This is done by using even strokes. Keep your arm moving at a constant speed and keep the spray gun at a constant distance from the surface. The best spraying distance is 10 to 12 inches between the spray tip and the surface.



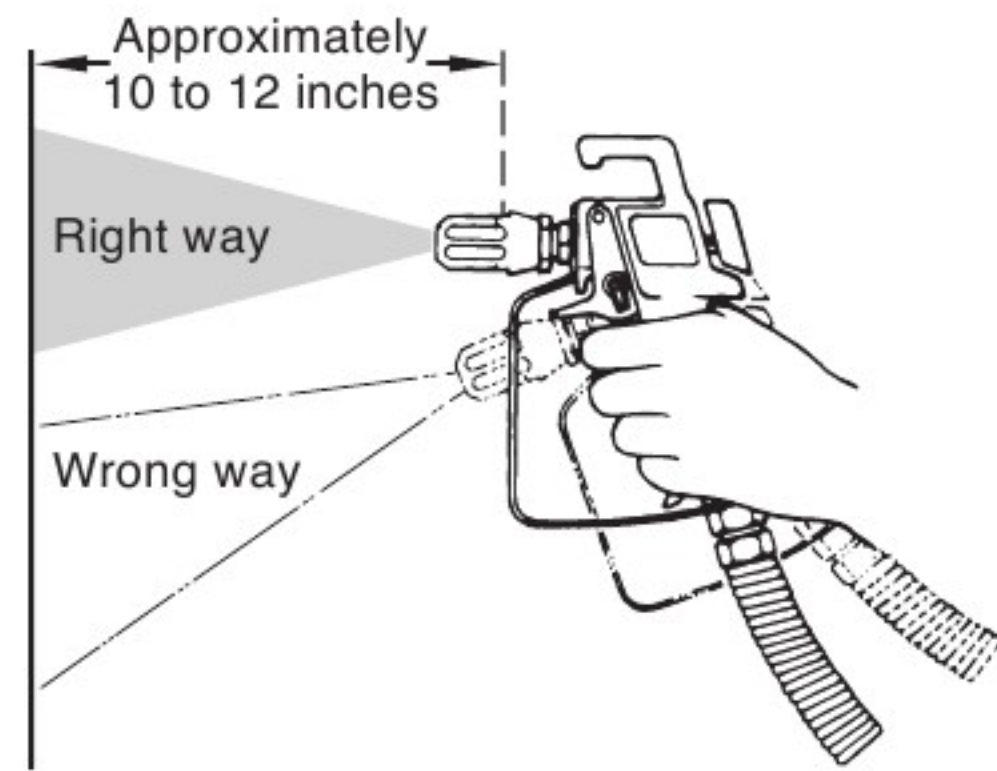
Keep stroke smooth and at an even speed.

Keep the spray gun at right angles to the surface. This means moving your entire arm back and forth rather than just flexing your wrist.

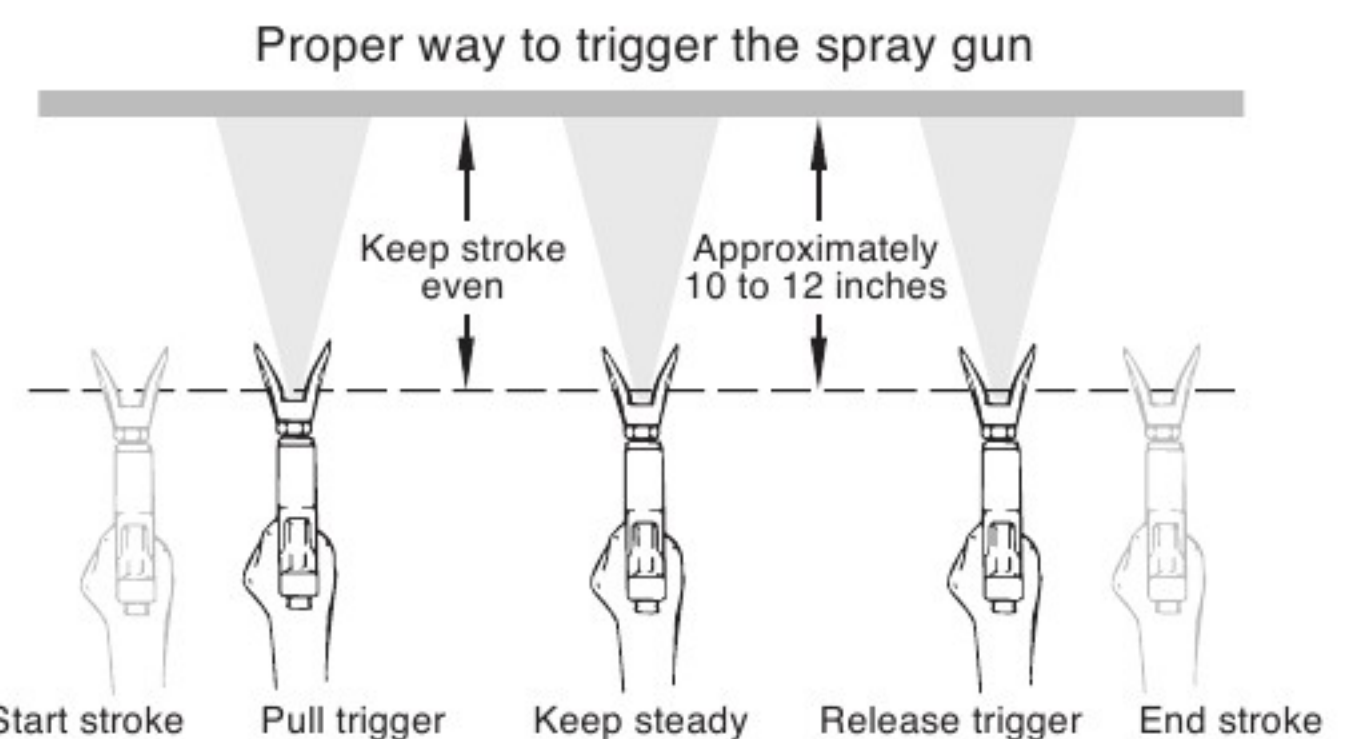


Do not flex wrist while spraying.

Keep the spray gun perpendicular to the surface, otherwise one end of the pattern will be thicker than the other.



The spray gun should be triggered by turning it on and off with each stroke. This will save paint and avoid paint buildup at the end of the stroke. Do not trigger the gun during the middle of a stroke. This will result in an uneven spray and splotchy coverage.



Overlap each stroke by about 30%. This will ensure an even coating.

When you stop painting, lock the gun trigger lock, turn the pressure control knob counterclockwise to its lowest setting and set the PRIME/SPRAY valve to PRIME. Turn the ON/OFF switch to the OFF position and unplug the sprayer.

### Practice

1. Be sure that the paint hose is free of kinks and clear of objects with sharp cutting edges.
2. Turn the pressure control knob counterclockwise to its lowest setting.
3. Move the PRIME/SPRAY valve up to the SPRAY position.
4. Turn the pressure control knob clockwise to its highest setting. The paint hose should stiffen as paint begins to flow through it.
5. Unlock the gun trigger lock.
6. Trigger the spray gun to bleed air out of the hose.
7. When paint reaches the spray tip, spray a test area to check the spray pattern.
8. Use the lowest pressure setting necessary to get a good spray pattern. If the pressure is set too high, the spray pattern will be too light. If the pressure is set too low, tailing will appear or the paint will spatter out in gobs rather than in a fine spray.

