

**CENTRAL PNEUMATIC®**  
**PROFESSIONAL**  
**HVLP GRAVITY FEED**  
**SPRAY GUN**  
**Model 66222**

**SET UP AND OPERATING INSTRUCTIONS**



Distributed exclusively by Harbor Freight Tools®.  
3491 Mission Oaks Blvd., Camarillo, CA 93011  
Visit our website at: <http://www.harborfreight.com>



**Read this material before using this product.**  
**Failure to do so can result in serious injury.**  
**SAVE THIS MANUAL.**

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**For technical questions or replacement parts, please call 1-800-444-3353.**

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## SAVE THIS MANUAL

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Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

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### Safety Alert Symbol and Signal Words

In this manual, on the labeling, and all other information provided with this product:



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

#### **DANGER**

**DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury.

#### **WARNING**

**WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury.

#### **CAUTION**

**CAUTION**, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

#### **NOTICE**

**NOTICE** is used to address practices not related to personal injury.

#### **CAUTION**

**CAUTION**, without the safety alert symbol, is used to address practices not related to personal injury.

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## IMPORTANT SAFETY INSTRUCTIONS

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### INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

**WARNING** – When using tools, basic precautions should always be followed, including the following:

#### General

To reduce the risks of electric shock, fire, and injury to persons, read all the instructions before using the tool.

#### Work area

- a. **Keep the work area clean and well lighted.** Cluttered benches and dark areas increase the risks of electric shock, fire, and injury to persons.

- b. **Remove or cover objects from the area that you want to protect from overspray or paint dust.**
- c. **Operate only in a well-ventilated area.** Paint thinners and solvents may be harmful if breathed. Always wear an ANSI approved ventilator when painting.
- d. **Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** The tool is able to create sparks resulting in the ignition of the dust or fumes.
- e. **Keep bystanders, children, and visitors away while operating the tool.** Distractions are able to result in the loss of control of the tool.

### Personal safety

- a. **Stay alert. Watch what you are doing and use common sense when operating the tool. Do not use the tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating the tool increases the risk of injury to persons.
- b. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair increases the risk of injury to persons as a result of being caught in moving parts.
- c. **Avoid unintentional starting. Be sure the trigger is off before connecting to the air supply.** Do not carry the tool with your finger on the

trigger or connect the tool to the air supply with the trigger on.

- d. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.



- e. **Use safety equipment.** A dust mask, non-skid safety shoes and a hard hat must be used for the applicable conditions. Wear protective work gloves during use.



- f. **Always wear eye protection.** Wear ANSI-approved safety goggles.



- g. **Always wear hearing protection when using the tool.** Prolonged exposure to high intensity noise is able to cause hearing loss.

### Tool use and care

- a. **Use clamps or another practical way to secure and support the work piece to a stable platform.** Holding the work by hand or against the body is unstable and is able to lead to loss of control.
- b. **Do not force the tool.** Use the correct tool for the application. The correct tool will do the job better and safer at the rate for which the tool is designed.
- c. **Do not use the tool if the trigger does not turn the tool on or off.** Any tool that cannot be controlled


- with the trigger is dangerous and must be repaired.
- d. **Disconnect the tool from the air source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool unintentionally. Turn off and detach the air supply, safely discharge any residual air pressure, and release the throttle and/or turn the trigger to its off position before leaving the work area.
  - e. **Store the tool when it is idle out of reach of children and other untrained persons.** A tool is dangerous in the hands of untrained users.
  - f. **Maintain the tool with care.** Keep a cutting tool sharp and clean. A properly maintained tool, with sharp cutting edges reduces the risk of binding and is easier to control.
  - g. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that affects the tool's operation.** If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools. There is a risk of bursting if the tool is damaged.
  - h. **Use only accessories that are identified by the manufacturer for the specific tool model.** Use of an accessory not intended for use with the specific tool model, increases the risk of injury to persons.

### Service

- a. **Tool service must be performed only by qualified repair personnel.**

- b. **When servicing a tool, use only identical replacement parts. Use only authorized parts.**
- c. **Use only the lubricants supplied with the tool or specified by the manufacturer.**

### Air source





- a.  **Never connect to an air source that is capable of exceeding 100 psi.** Over pressurizing the tool may cause bursting, abnormal operation, breakage of the tool or serious injury to persons. Use only clean, dry, regulated compressed air at the rated pressure or within the rated pressure range as marked on the tool. Always verify prior to using the tool that the air source has been adjusted to the rated air pressure or within the rated air-pressure range.
- b. **Never use oxygen, carbon dioxide, combustible gases or any bottled gas as an air source for the tool.** Such gases are capable of explosion and serious injury to persons.



**SAVE THESE INSTRUCTIONS.**

# SYMBOLS AND SPECIFIC SAFETY INSTRUCTIONS

## Symbol Definitions

Symbol	Property or statement
<b>n<sub>o</sub></b>	No-load speed
<b>.../min</b>	Revolutions or reciprocation per minute
<b>PSI</b>	Pounds per square inch of pressure
<b>ft-lb</b>	Foot-pounds of torque
<b>BPM</b>	Blows per minute
<b>CFM</b>	Cubic Feet per Minute flow
<b>SCFM</b>	Cubic Feet per Minute flow at standard conditions
<b>NPT</b>	National pipe thread, tapered
<b>NPS</b>	National pipe thread, straight
	WARNING marking concerning Risk of Eye Injury. Wear ANSI-approved eye protection.
	WARNING marking concerning Risk of Hearing Loss. Wear hearing protection.
	WARNING marking concerning Risk of Respiratory Injury. Wear NIOSH-approved dust mask/respirator.
	WARNING marking concerning Risk of Explosion.

## Specific Safety Instructions

- The warnings and precautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which

cannot be built into this product, but must be supplied by the operator.

- WARNING: The brass components of this product contain lead, a chemical known to the State of California to cause birth defects (or other reproductive harm). (California Health & Safety code § 25249.5, *et seq.*)
- Only use with accessories rated to handle the forces exerted by this tool during operation.
- Attach all accessories properly to the tool before connecting the air supply. A loose accessory may detach or break during operation.
- Obey the manual for the air compressor used to power this tool.
- Install an in-line shutoff valve to allow immediate control over the air supply in an emergency, even if a hose is ruptured.



**SAVE THESE  
INSTRUCTIONS.**

## FUNCTIONAL DESCRIPTION

### Specifications

Air Pressure Range	15-45 PSI
Maximum Air Pressure	45 PSI
Air Inlet	1/4" -18 NPS
Air Consumption	12 SCFM @ 45 PSI
Paint Cup Capacity	20 FL. OZ.

### Components and Controls

Please refer to the photo on this page for important components and controls.

## INITIAL TOOL SET UP/ ASSEMBLY



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under

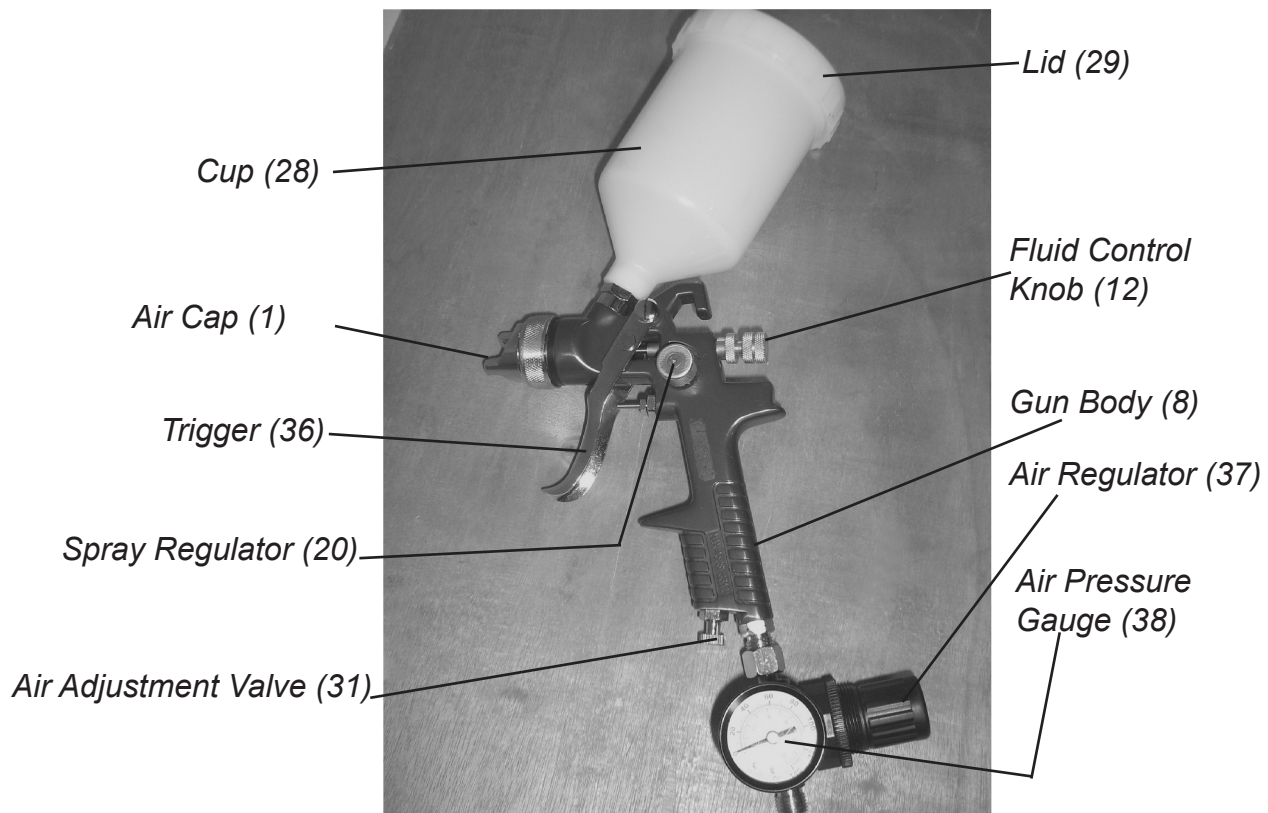
subheadings therein before set up or use of this product.

**Note:** For additional information regarding the parts listed in the following pages, refer to the Assembly Diagram near the end of this manual.

### Unpacking

When unpacking, check to make sure that the item is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number shown throughout the manual as soon as possible.

- This air tool may be shipped with a protective plug covering the air inlet. Remove this plug before set up.





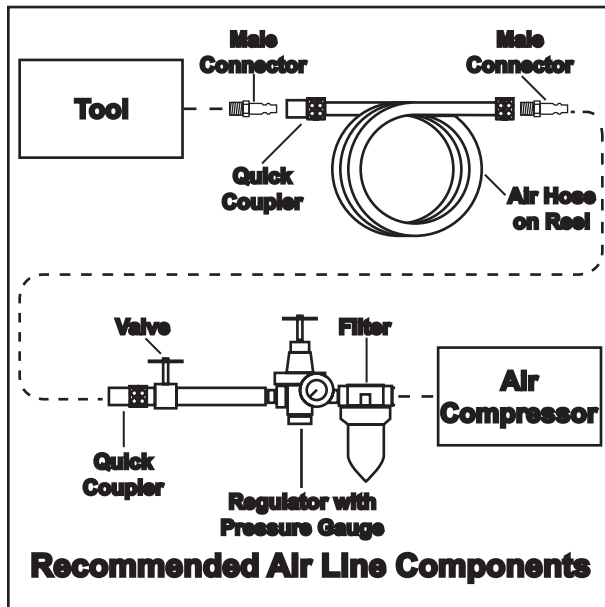
## Air Supply

### **WARNING**



### TO PREVENT EXPLOSION:

Use only clean, dry, regulated, compressed air to power this tool. Do not use oxygen, carbon dioxide, combustible gases, or any other bottled gas as a power source for this tool.



1. Incorporate a shut-off valve, regulator with pressure gauge, and filter for best service, as shown in the diagram above. **An in-line shutoff valve is an important safety device because it controls the air supply even if the air hose is ruptured.**
2. Attach an air hose to the compressor's air outlet. Connect the air hose to the air inlet of the tool. Other components, such as a connector and quick coupler, will make operation more efficient, but are not required.

**WARNING!** TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

**Do not install a female quick coupler on the tool.** Such a coupler contains an air valve that will allow the air tool to retain pressure and operate accidentally after the air supply is disconnected.

**Note:** Air flow, and therefore tool performance, can be hindered by under-sized air supply components.

3. The air hose must be long enough to reach the work area with enough extra length to allow free movement while working.
4. Make sure the tool's trigger is in the off position; refer to Operation section for description of controls.
5. Close the in-line safety valve between the compressor and the tool.
6. Turn on the air compressor according to the manufacturer's directions and allow it to build up pressure until it cycles off.
7. Adjust the air compressor's output regulator so that the air output is enough to properly power the tool, but the output will not exceed the tool's maximum air pressure at any time. Adjust the pressure gradually, while checking the air output gauge to set the right pressure range.
8. Inspect the air connections for leaks. Repair any leaks found.
9. If the tool will not be used at this time, turn off and detach the air supply, safely discharge any residual air pressure, and release the throttle and/or turn the trigger to its off position to prevent accidental operation.

**Note:** Residual air pressure should not be present after the tool is disconnected from the air supply. However, it is a good safety measure to attempt to discharge the tool in a safe fashion after disconnecting to ensure that the tool is disconnected and unpowered.

## **OPERATING INSTRUCTIONS**



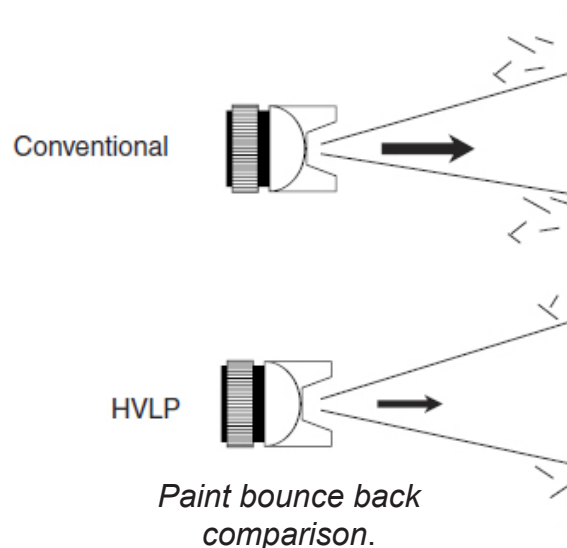
Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

**Inspect tool before use, looking for damaged, loose, and missing parts. If any problems are found, do not use tool until repaired.**

### **Understanding HVLP**

1. HVLP Spray Guns are different from conventional spray guns and airless sprayers.
2. HVLP stands for High Volume Low Pressure. This means that HVLP guns will spray a larger amount of paint at lower Cap Pressure than conventional air powered spray guns.
3. Cap Pressure is the amount of air pressure present at the Spray Cap (1). Lower pressure results in less paint being air dried between the gun and the work surface, and less bounce back from the work surface. You will achieve a smoother painted surface with less waste and over-spray than with a conventional air powered spray gun.

4. Air powered HVLP and conventional spray guns differ from airless sprayers that are fluid powered.
5. Airless sprayers use a fluid pump to force the paint through the gun to the spray cap. The fluid pressure at the cap atomizes the paint causing the spray.
6. Airless sprayers do not require an air compressor to operate as do HVLP and conventional sprayers. However, since the paint is pumped under pressure through the gun, airless sprayers are more difficult to clean and maintain than HVLP sprayers.
7. If you have compressed air available, HVLP spray guns will provide a better finish with less paint waste and less required maintenance than conventional or airless sprayers.





## Tool Set Up



### **TO PREVENT SERIOUS INJURY FROM**

**ACCIDENTAL OPERATION:**  
Turn off the tool, detach the air supply, safely discharge any residual air pressure in the tool, and release the throttle and/or turn the trigger to its off position before performing any inspection, maintenance, or cleaning procedures.

### **TO PREVENT SERIOUS INJURY:**

**Do not adjust or tamper with any control or component in a way not specifically explained within this manual. Improper adjustment can result in tool failure or other serious hazards.**

1. This tool is treated with anti-corrosive compounds at the factory. Flush it out thoroughly with paint thinner before first use.
2. Before using check all fasteners and air connections to be sure they are tight.
3. To avoid contamination, blow out the air line before connecting to the Spray Gun.

## Work Piece and Work Area Set Up

1. Designate a work area that is clean and well-lit. The work area must not allow access by children or pets to prevent injury and distraction.

2. Route the air hose along a safe route to reach the work area without creating a tripping hazard or exposing the air hose to possible damage. The air hose must be long enough to reach the work area with enough extra length to allow free movement while working.
3. Secure loose work pieces using a vise or clamps (not included) to prevent movement while working.
4. There must not be hazardous objects (such as utility lines or foreign objects) nearby that will present a hazard while working.
5. Prepare a well ventilated work space. Use a ventilator designed to prevent inhalation of paint and volatile fluids and gasses.

## Prepare the paint

1. Due to the high viscosity of latex and most water based paints, they are not generally recommended for HVLP painting. Check with the paint manufacturer for specifics.
2. In most cases, the paint must be thinned for spraying. Only use the thinner recommended by the paint manufacturer. If the paint is too thick, you will get a thick, orange-peel finish, and the sprayer may clog. If the paint is too thin, you will get poor coverage, drips and runs, and excessive drying of the paint in the air.
3. Proper thinning varies with the material being used and local temperature and humidity. In most cases, thinning will be approximately 10% and not more than 30%.

4. Test the paint viscosity by dipping a stick into the paint, then observing the rate paint drips from the end. Properly thinned paint will drip about 1 per second.
5. Follow paint manufacturer's recommendations. Experiment with scrap material to determine the correct paint viscosity.
6. Always strain the paint when pouring it into the Cup (28). This will prevent lumps or impurities from clogging the Fluid Nozzle (2).

### Adjust the Air Pressure

1. Adjust the air pressure by turning the Knob on the Air Regulator (37). Pull the Knob out to release, turn to adjust, then press back in to lock. The air pressure setting can be read on the Air Pressure Gauge (38). The recommended pressure is 15 to 45 PSI.  
**CAUTION! TO PREVENT TOOL AND ACCESSORY FAILURE, RESULTING IN INJURY: Do not exceed the tool's maximum air pressure rating.**
2. Air pressure can be fine adjusted using the Air Adjustment Valve (31). Air pressure too high will cause splattering, too low will cause drizzling.

### Adjust the Paint Volume

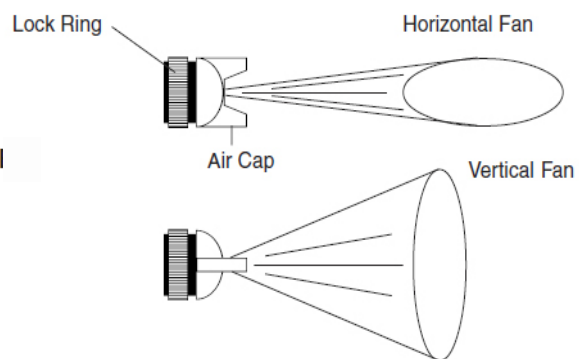
1. The amount of paint being sprayed can be adjusted with the Fluid Control Knob (12). To adjust, release the Lock Nut (11) by turning it slightly counterclockwise.
2. Turn the Fluid Control Knob (12) all the way clockwise to turn off paint flow. Using a scrap material,

squeeze the Trigger (36) all the way. With the Trigger squeezed, turn the Fluid Control Knob (12) counterclockwise to increase paint flow.

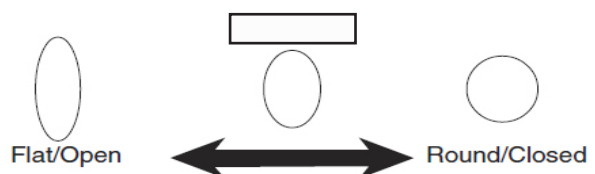
3. When the paint pattern is smooth, lock the setting by turning the Lock-nut (11) clockwise.

### Adjusting the Fan Direction and Pattern

1. The fan shaped spray direction of the paint can be adjusted by turning the Air Cap (1). Loosen the lock ring, turn the Air Cap as needed then retighten the lock ring.



2. When spraying in a horizontal motion, have the Air Cap (1) turned horizontally to have a vertical fan. When spraying up and down, have the Air Cap turned vertically to have a horizontal fan.
3. The spray pattern can be adjusted by turning the Spray Regulator (20). Turning the knob counterclockwise will open and flatten the pattern. Turning it clockwise will close the pattern making it more round.



- Practice on scrap material until the desired pattern is achieved.

### Understanding Paint Thinners and Solvents

- Understand the difference between a paint “thinner” and a paint “solvent”. A thinner is used to thin the paint while it is wet. A solvent is used to dissolve the paint after it has dried.

Paint Type	Thinner	Solvent
Latex	Water	Paint Remover
Water Based Paint	Water	Paint Remover
Oil Varnish or Paint	Mineral Spirits, Turpentine	Paint Remover
Lacquer	Lacquer Thinner	Lacquer Thinner
Shellac	Alcohol	Alcohol

- There are basically three types of paint: evaporative, chemical and coagulating.
- Evaporative paints cure when the solvent evaporates. These are quick drying paints, including lacquer and shellac.
- Chemical paints cure when there is a chemical reaction solidifying the paint, as the solvent evaporates. Oil-based paint and varnish are of this type. They are relatively slow drying, and may cure over months or years.
- Coagulating paint such as latex and water based finishes are composed of bits of paint suspended in water. As the water evaporates the bits of paint adhere to each other and form

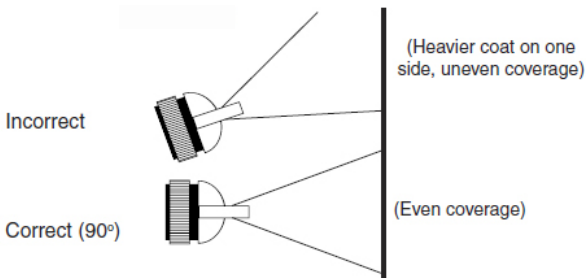
a paint film. The paint film chemically bonds together.

- While the paint is wet, before it has dried, you can thin or clean away the paint using a thinner.
- Once the paint has dried, in most cases the thinner can no longer be used. You must then use a solvent to remove the paint.
- Cleaning the paint before it dries, using a thinner, is much easier than cleaning the paint after it dries using a solvent.
- Always clean this spray gun immediately after use, before the paint dries. Use the thinner approved by the manufacturer for your paint.

### Painting Technique with this HPLV Sprayer

- Your goal in painting with this sprayer is to get good coverage of the work piece. You want an even coat without drips or runs and with a smooth surface.
- To get an even coat, hold the spray gun 6 to 8 inches away from the work surface. Keep the distance of your gun from the project, as consistent as possible.
- Start spraying slightly off the edge of the work piece, move the spray across and end slightly off the work piece. Overlap each pass across the work piece. While this method does create over-spray at the edges, it will give you an even coat without heavier or lighter layers at the edge.

4. Do not stop your motion when spraying the work piece. Stopping will cause to build up, and run or sag.
5. Hold the Spray Gun vertically. Holding the gun at an angle will affect the spray pattern.



6. Do not spray too heavily. Heavy spray will cause drips, sags and runs. Build up the paint surface with several light coats. Apply each coat when the previous one is tacky but not yet dry. This will allow the over coat to adhere to the previous layer, but will not be so heavy as to cause sags, runs or drips.
7. You must also avoid thick, clumpy paint surface called “orange peel”. Prevent orange peel by thinning the paint properly before spraying. Then spray successive light, even coats.

### **Operating the HVLP Sprayer**

1. Cover all items you do not want painted, using painters plastic or a drop cloth (not included).
2. Connect your air supply hose to the Air Inlet (32).
3. Adjust the Air Regulator to 15-45 PSI.
4. Fill the Cup (28) with thinned paint. Remember to pour the paint through

- a strainer. Replace the Lid (29) and screw on tightly.
5. Put on a ventilator and other safety equipment recommended in the Safety Section of this manual.
6. Point the Sprayer toward the work material and squeeze the Trigger (36). Paint will spray.
7. Move the spray across the work piece as needed.
8. When done painting, release the Trigger (36). The gun will stop spraying.
9. The Gun Body (8) has a hook built into the top for convenient hanging during pauses in operation.
10. When done painting, pour remaining paint from the Cup (28) into an appropriate container.
- 11. Clean the Sprayer thoroughly before putting it away.**
12. To prevent accidents, turn off the tool, detach the air supply, safely discharge any residual air pressure in the tool, and release the throttle and/or turn the trigger to its off position after use.
13. Then store the tool indoors in a safe place out of children’s reach.

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## USER MAINTENANCE INSTRUCTIONS

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Procedures not specifically explained in this manual must be performed only by a qualified technician.

### **WARNING**

#### TO PREVENT SERIOUS INJURY FROM

##### **ACCIDENTAL OPERATION:**

Turn off the tool, detach the air supply, safely discharge any residual air pressure in the tool, and release the throttle and/or turn the trigger to its off position before performing any inspection, maintenance, or cleaning procedures.

##### **TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:**

Do not use damaged equipment. If abnormal noise, vibration, or leaking air occurs, have the problem corrected before further use.

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### **Cleaning, Maintenance, and Lubrication**

**Note:** These procedures are in addition to the regular checks and maintenance explained as part of the regular operation of the air-operated tool.

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### **Cleaning the Sprayer**

1. **IMPORTANT:** The Spray Gun must be cleaned every time immediately after use. Improper cleaning is the primary cause of Spray Gun failure.
2. Immediately after finishing painting, pour out remaining paint from the Cup. Rinse out the cup with paint thinner. Wipe out the cup to clean remaining paint residue. Fill the Cup part way with paint thinner and spray into a suitable container. Continue to spray until the thinner comes out clear.
3. Dump remaining thinner from the Cup back into the thinner container. Wipe off the exterior of the Spray Gun with thinner to remove paint.
4. If the gun becomes clogged, disassemble parts 1 - 7, 9 -12 and 26 - 30 and carefully clean all the parts.
5. To clean, use the enclosed brush (33) or a cleaning kit, such as SKU# 99634 available from Harbor Freight Tools.
6. Never use a pin or metal scraper to clean the delicate components of this sprayer. You will damage the sprayer.
7. Carefully reassemble following the Assembly diagram on page 17. Be sure all springs and seals are properly seated. Do not damage threads. Do not overtighten.

## Tool Troubleshooting

Problem	Possible Causes	Likely Solutions
Decreased output.	<ol style="list-style-type: none"> <li>1. Not enough air pressure and/or air flow.</li> <li>2. Obstructed trigger.</li> <li>3. Blocked air inlet screen (if equipped).</li> <li>4. Air leaking from loose housing.</li> <li>5. Air Regulator set too low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check for loose connections and make sure that air supply is providing enough air flow (CFM) at required pressure (PSI) to the tool's air inlet. Do not exceed maximum air pressure.</li> <li>2. Clean around trigger to ensure free movement.</li> <li>3. Clean air inlet screen of buildup.</li> <li>4. Make sure housing is properly assembled and tight.</li> <li>5. Adjust Air Regulator setting.</li> </ol>
Severe air leakage. (Slight air leakage is normal, especially on older tools.)	<ol style="list-style-type: none"> <li>1. Cross-threaded housing components.</li> <li>2. Loose housing.</li> <li>3. Damaged connectors or housing.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check for incorrect alignment and uneven gaps. If cross-threaded, disassemble and replace damaged parts before use.</li> <li>2. Tighten housing assembly. If housing cannot tighten properly, internal parts may be misaligned.</li> <li>3. Replace damaged components.</li> </ol>
Inconsistent paint flow, blobs and splatters	<ol style="list-style-type: none"> <li>1. Clogged Air Cap (1) or damaged Fluid Nozzle (2).</li> <li>2. Clogged Paint Filter (27).</li> <li>3. Damaged or dirty Paint Needle (9).</li> <li>4. Contaminated paint.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean , adjust or replace Air Cap or Fluid Nozzle.</li> <li>2. Clean Paint Filter (27).</li> <li>3. Clean, repair or replace Paint Needle (9).</li> <li>4. Remove paint and filter it.</li> </ol>
Paint blows out too hard	<ol style="list-style-type: none"> <li>1. Air pressure set too high.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust Air Regulator to no more than 45 PSI. Fine tune air pressure using Air Adjustment Valve (31).</li> </ol>



**Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect air supply before service.**



## PAINT APPLICATION TROUBLESHOOTING

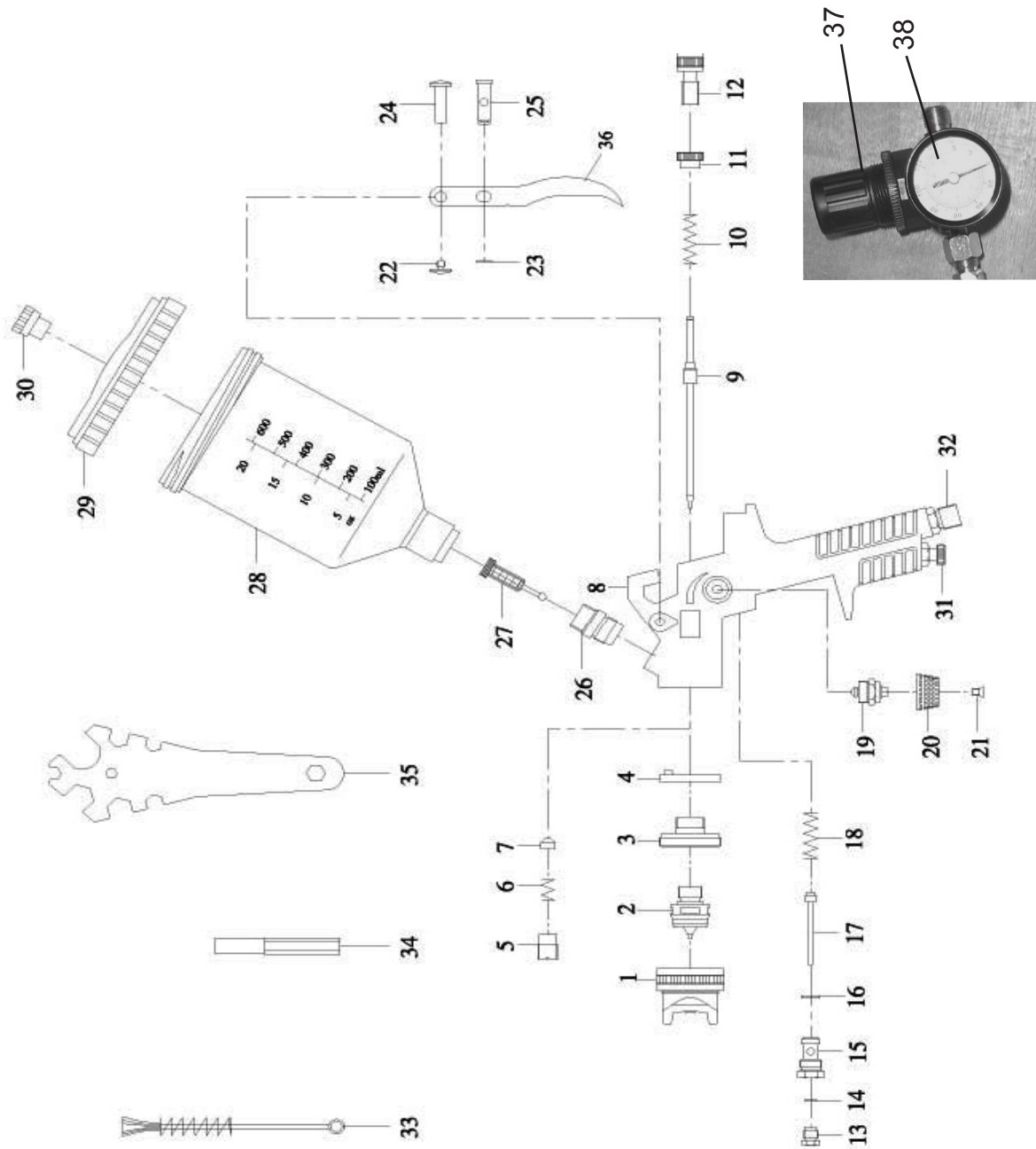
<b>Problem</b>	<b>Possible Causes</b>	<b>Likely Solutions</b>
Paint surface is bumpy or "orange peeled"	<ol style="list-style-type: none"> <li>1. Paint is applied too thick</li> <li>2. Incorrect paint volume</li> <li>3. Insufficient air pressure</li> <li>4. Paint gun too far from paint surface during spraying</li> </ol>	<ol style="list-style-type: none"> <li>1. Paint must be thinned properly before spraying</li> <li>2. Adjust Fluid Control Knob (12)</li> <li>3. Adjust Air Regulator (37) and Air Adjustment Valve (31)</li> <li>4. Hold spray gun closer to surface during spraying.</li> </ol>
Paint sags or runs	<ol style="list-style-type: none"> <li>1. Excess thinning of paint</li> <li>2. Paint applied too thick</li> <li>3. Paint gun too close to work surface</li> <li>4. Uneven or hesitant motion of spray gun</li> <li>5. Excess overlapping of each spray stroke</li> <li>6. Excessive paint fluid</li> </ol>	<ol style="list-style-type: none"> <li>1. Recheck paint viscosity. Add unmixed paint to thicken mixture.</li> <li>2. Apply thinner coats, allowing paint to get tacky between coats.</li> <li>3. Move spray gun further back from paint surface when applying paint.</li> <li>4. Keep spray gun moving during painting. Hesitations can cause sags or runs.</li> <li>5. Overlap each stroke to keep the coverage even, but be aware that you are adding coat thickness by overlapping.</li> <li>6. Adjust the Fluid Control Knob (12)</li> </ol>
Blotchy surface (blushing) or uneven color	<ol style="list-style-type: none"> <li>1. Paint dries too fast</li> <li>2. Uneven paint application</li> <li>3. Work material absorbs paint unevenly</li> </ol>	<ol style="list-style-type: none"> <li>1. Use less thinner or add a drier.</li> <li>2. Start each stroke off the work material and overlap each stroke consistently.</li> <li>3. Use a conditioner or sealer coat before applying the finish coat.</li> </ol>
Spots on surface with light center (fish eyes)	<ol style="list-style-type: none"> <li>1. Paint mixture too thin</li> <li>2. Improper primer or incompatible surface</li> <li>3. Surface contamination</li> </ol>	<ol style="list-style-type: none"> <li>1. Add undiluted paint to thicken mixture</li> <li>2. Check manufacturer's recommendations for primer or compatible surfaces</li> <li>3. Clean surface thoroughly with thinner before applying paint</li> </ol>
Spots on surface with dark center (contamination)	<ol style="list-style-type: none"> <li>1. Dust or dirt on surface</li> <li>2. Insufficiently sanded</li> <li>3. Raised grain</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean surface with compressed air or tack cloth before painting</li> <li>2. Sand wood to a sufficiently fine grit before painting.</li> <li>3. Wipe wood surface with thinner to raise grain, then sand with fine grit to knock of "hairs"</li> </ol>

<b>PARTS LIST</b>		
<b>Part</b>	<b>Description</b>	<b>Q'ty</b>
1	Air Cap with Lock ring	1
2	Fluid Nozzle	1
3	Air Ring	1
4	Piston Pad	1
5	Compression Ring	1
6	Needle Seal Spring	1
7	Air Piston Seal	1
8	Gun Body	1
9	Paint Needle	1
10	Paint Piston Spring	1
11	Lock Nut	1
12	Fluid Control Knob	1
13	Air Piston Box	1
14	Air Piston Packing	1
15	Air Piston	1
16	Piston Ring	1
17	Air Piston	1
18	Air Piston Spring	1
19	Spray Regulator Screw	1
20	Spray Regulator Knob	1
21	Screw	1
22	Trigger Bolt	1
23	Locking Plate	1
24	Bolt	1
25	Bolt	1
26	Paint Connector	1
27	Filter	1
28	Cup	1
29	Lid	1
30	Vent	1
31	Air Adjustment Valve Assembly	1
32	Air Inlet	1
33	Brush	1
34	Hex Adapter	1
35	Wrench	1
36	Trigger	1
37	Air Regulator	1
38	Air Pressure Gauge	1

**PLEASE READ THE FOLLOWING CAREFULLY**

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# ASSEMBLY DIAGRAM



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## LIMITED 90 DAY WARRANTY

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Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

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This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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**Record Product's Serial Number Here:** \_\_\_\_\_

**Note:** If product has no serial number, record month and year of purchase instead.

**Note:** Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

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