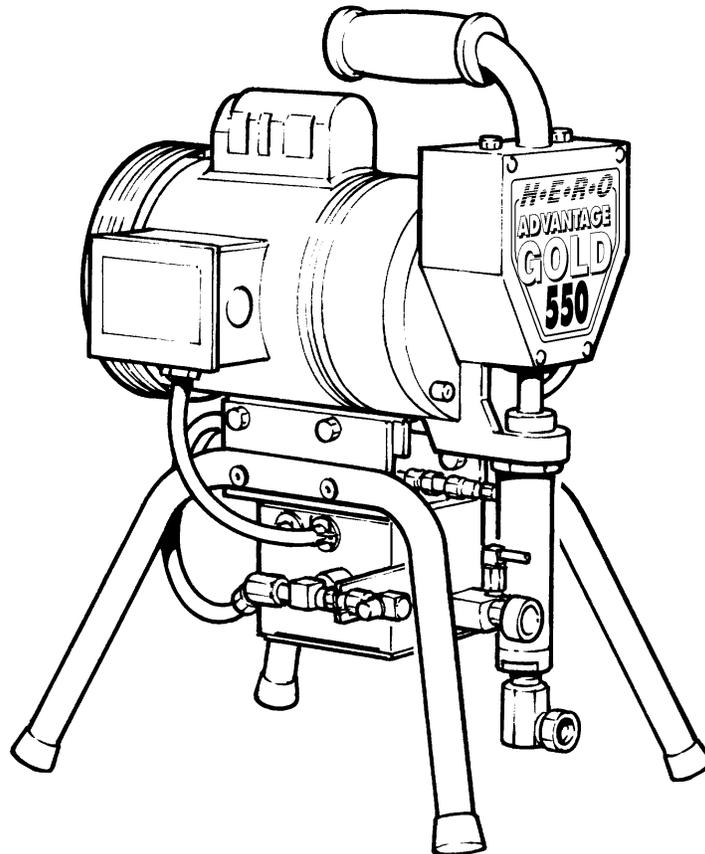


HERO

Industries

PISTON POWER 550 ADVANTAGE GOLD



WARNING

DO NOT ATTEMPT TO OPERATE THIS MACHINE UNTIL YOU HAVE READ AND UNDERSTOOD ALL SAFETY PRECAUTIONS AND OPERATING INSTRUCTIONS. EQUIPMENT AND CHEMICALS WHEN USED IMPROPERLY CAN BE DANGEROUS.

WARNING:

When a combustible liquid is sprayed, there may be danger of fire or explosion, especially in a closed area. Read operating instructions.

CAUTION:

Arcing parts, keep the unit at least 6 M (20 feet) away from explosive vapors.

High pressure device. Read instruction manual before operating and observe all warnings.

AVERTISSEMENT:

La pulvérisation d'un liquide inflammable peut entraîner un risque d'incendie ou d'explosion, surtout dans les espaces fermés. Lire le mode d'emploi.

ATTENTION:

Étincelles électriques. Ne pas placer l'unité à moins de 6 M (20 pieds) des vapeurs explosives.

Matériel à haute pression. Lire les instructions du fabricant avant de mettre en marche, et observer toutes les consignes de sécurité.

H.E.R.O. WARRANTY

H.E.R.O. INDUSTRIES, guarantees this airless pump to be free of defects in materials and workmanship to the original owner, for a period of one full year from the date of purchase.

The warranty entitles the owner to parts replacement at no charge. The parts replacement warranty is valid for any necessary replacement, whither caused by material or workmanship defect or simple wear. H.E.R.O. Industries offers no warranty on the hoses, gun, tip or accessories, plastic, rubber, other soft goods or motor used in or supplied with the H.E.R.O. sprayer.

In addition to the general coverage listed above, a 5 YEAR WARRANTY is offered on the Drive Train components. The drive train components are defined as the items contained within, but not including, the "Drive Housing". Drive motor not included.

Further more, this warranty does not cover, damage or wear caused by faulty installation, abrasion, corrosion, inadequate or improper maintenance, negligence, or accident.

Motor, accessories, etc., which are supplied by other manufacturers and are attached to or supplied with the H.E.R.O. airless pump, are warranted only to the extent that these parts are warranted by their respective manufacturers. Warranty claims must be made directly to such manufacturers or their local authorized service depots.

The warranty is only applicable to the original purchaser and the equipment has been properly used, operated and maintained in accordance with all instructions, precautions and warnings contained in this manual. For the purpose of this warranty, damage resulting from accident, abuse, improper cleaning, storage, operation, fire, flood, or Act of God, is not covered.

H.E.R.O.'s liability is limited to replacing parts found to be defective or worn and does not include; transportation costs, damage or other expenses of any kind incurred in connection with the purchase and use of this sprayer.

Repairs claimed under warranty must be performed at an authorized H.E.R.O. Service Center, using only genuine H.E.R.O. parts. Parts necessary under warranty claim will be supplied by your local H.E.R.O. Service Center. DO NOT return worn parts to factory without authorization.

To qualify for the warranty, the warranty card (attached to this page) supplied with this H.E.R.O. airless pump, must be completed with equipment serial number and signed by the purchaser, and postmarked within ten (10) days of purchase.

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IMPORTANT SAFETY PRECAUTIONS WARNING

Never place fingers near the spray tip of gun. Never point the gun toward any part of your body, or that of any other person. Material issuing from the spray tip is at high pressure. If fingers, or any part of the body are placed near the tip of the spray gun, it is possible that the spray could break the skin and inject some of the spray material. If injury does occur, seek the immediate attention of a medical doctor. Be prepared to inform the doctor what fluid was injected, if the injury is of an injection nature. Equipment and chemicals, when used improperly can be dangerous.

- NEVER** place any part of the body in front of the spray tip or aim the gun toward any part of the body.
- NEVER** point the gun toward any individual.
- NEVER** treat any injury as a simple cut. If injury does occur, seek immediate medical attention. Be prepared to inform the doctor what fluid was injected.
- NEVER** allow another person to use the sprayer unless he is thoroughly instructed on its operation and has read all safety precautions in this manual and all safety warning labels attached to unit.
- NEVER** use around children.
- NEVER** attempt to perform any maintenance or service on any part of the unit spray system without first;
 1. Shutting off the unit.
 2. Disconnecting the power cord from the outlet.
 3. Relieving all pressure in the pump by triggering the gun.
 4. Locking gun trigger in "LOCKED" position, with gun locked closed.
- NEVER** operate the sprayer without the tip guard complete and in place.
- NEVER** spray any material in the vicinity of open flame, pilot lights, electrical outlets or any other source of ignition.
- NEVER** spray volatile materials with flash points lower than 140 F (60 C).
- NEVER** attempt to stop any leakage in the paint line or at any fitting with your hand or any part of your body. Immediately shut off the unit should leakage occur.
- NEVER** wash an electric motor, nor operate it in the rain or in wet or damp areas, to protect yourself from electric shock.
- NEVER** allow paint hose to become kinked, or to vibrate against rough or sharp surfaces.
- NEVER** operate the unit at pressures higher than the pressure rating of the lowest rated component in the system, or at pressure higher than factory preset.
- NEVER** spray in an enclosed area. The spraying area must be well ventilated to safely remove chemical vapors.
- NEVER** operate the unit with worn or damaged accessories, or with accessories other than those supplied by H.E.R.O. Industries,
- NEVER** leave unit unattended without first shutting off, triggering the gun to relieve all pump pressure, and setting the trigger lock on gun in "LOCKED" position, with gun locked closed.

ALWAYS

- ☑ **ALWAYS** follow H.E.R.O. recommendations for operation and safety completely.
- ☑ **ALWAYS** ensure that switch is in off position before plugging in the electric motor.
- ☑ **ALWAYS** set trigger lock on gun in "LOCKED" position when not in use, with gun locked close.
- ☑ **ALWAYS** check connections and fittings for tightness before operating the unit.
- ☑ **ALWAYS** locate the unit in a well ventilated area a minimum of 25 feet from the spray area.
- ☑ **ALWAYS** ground the unit, the paint containers, and the object being sprayed to eliminate static discharge.
- ☑ **ALWAYS** use approved 3 prong grounded extension cord not less than # 12/3 gauge up to 50 feet, and not less than # 10/3 gauge up to 150 feet. **DO NOT** exceed 150 feet of extension cord.
- ☑ **ALWAYS** use accessories and components approved for at least 3000 psi (working pressure) in the spraying system.
- ☑ **ALWAYS** use accessories and components supplied by H.E.R.O. Industries. on the unit.
- ☑ **ALWAYS** examine accessories for wear or damage before operating the unit.
- ☑ **ALWAYS** use lowest possible pressure when flushing and cleaning the unit, and hold the gun firmly against a metal container to reduce static discharge possibility.
- ☑ **ALWAYS** ;
 1. Turn off the motor.
 2. Disconnect the power cord from the outlet.
 3. Relieve all pressure in the pump by triggering the gun.
 4. Lock gun trigger in "**LOCKED**" position, with gun locked closed before attempting to perform any maintenance or service on any part of the unit spray system.
- ☑ **ALWAYS** observe good housekeeping and keep the spray area free from obstructions.
- ☑ **ALWAYS** be aware that certain chemicals may react with aluminum, carbide, or other components in the pump system. Read the manufacturer's label on all materials to be sprayed, and follow the manufacturer's recommendations. If in doubt, consult your material supplier to be sure.
- ☑ **ALWAYS** replace any damaged airless paint hose. A scratched, torn, cut or otherwise damaged outer core of the paint hose can lead to a rupture. **DO NOT** attempt to repair a damaged hose.

WARNING

Prior to the use of the sprayer, ensure that the grounded continuity between the gun and the sprayer is maintained. The hose shall be at least 50 feet in length. All hoses, guns, and involved accessories shall be suitable for the maximum pressure involved (2800 PSI). The gun shall be provided with a "Safety" which locks the trigger in the "OFF" position. DO NOT point the gun at another person or spray at operator's skin. These are only minimum requirements. If there are any special or unique conditions for this appliance, they shall be further noted and addressed and must be followed. Read and understand this manual completely, especially with regard to all safety precautions. Read and follow all warning labels on your equipment. Keep the warning labels clean and readable at all times.

The manufacturer shall not be responsible for any loss, damages, or injury of any kind or nature whatsoever resulting from the use of equipment other than in strict compliance with the instructions, cautions and warnings contained in this operating and instruction manual and as displayed on the face of the equipment.

H.E.R.O. AIRLESS SPRAY PAINTING

Welcome to the world of H.E.R.O. airless paint spraying. We are sure you will enjoy owning and operating your new H.E.R.O. model 550. With H.E.R.O. airless spray equipment you will avoid the inconvenience and mess of overspray. You are spraying paint, not air, and the paint is driven to the painting surface in a clean, fan shaped spray which penetrates all cracks and corners. To attain these results, you must adjust the pressure as low as possible. We recommend that you become familiar with your H.E.R.O. unit.

Your H.E.R.O. airless sprayer has been fully factory tested prior to shipment.

BEFORE STARTING YOUR H.E.R.O. PUMP....

- ☑ **CHECK** all fittings and connections in the pump system, hose, and gun to ensure that they are tight.
- ☑ **CHECK** paint hose for nicks, cuts or abrasions. Replace if necessary, **DO NOT** attempt to repair.
- ☑ **CHECK** to ensure that there is a spray tip in the gun, and that the tip is the correct size for the coating you are to spray. (There are various tips available, for each type of coating or configuration. See " Airless Spray Tip " on page 21 , for proper tip selection.
- ☑ **CHECK** to ensure that you have H.E.R.O. strainer bags, H.E.R.O. Wonder Wash, appropriate thinner for the paint, a waste container, and any other accessories you may require for the job.
- ☑ **CHECK** to ensure that you have adequate extension cord size and length if the machine cannot be situated immediately next to an electric outlet. Distances up to **50** feet require **#12/3** wire grounded cord, up to **150** feet require **#10/3** wire grounded cord. **DO NOT exceed 150 feet of extension cord.** If distance is greater, obtain and install extra length of H.E.R.O. airless spray hose.
- ☑ **CHECK** electrical service. Ensure electrical service is a dedicated 120V, 60 HZ, 15AMP minimum and properly grounded.
- ☑ **CHECK** packing nut and piston pump lubricant. Ensure that the packing nut reservoir is at least 1/2 full at all times. This will help prevent build up of material on the piston rod and will extend packing life. See page 11.
- ☑ **Prior to starting, thin the paint according to manufacturer's specifications and strain the paint through a H.E.R.O. strainer bag.**

1.1 GETTING STARTED

1. **Connect siphon hose & bleed hose to unit.** Attach intake siphon assembly (ref#) to intake nipple (ref#) and secure with clamp (ref#). Attach bleed hose (ref#) to bleed valve nipple (ref#), securing with clamp (ref#).
2. **Connect the hose and gun.** Connect one end of the hose to the 1/4 NPT (m) outlet (ref# 36) of the sprayer. Screw the gun, complete with spray tip and tip guard onto the other end of the hose. Ensure that a minimum of 50' of 1/4" hose is connected to the sprayer for optimum performance. For heavy bodied products, a 50' x 3/8" paint hose is recommended.

Extension cords must not exceed the maximum lengths indicated on page 6

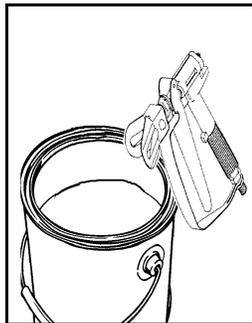
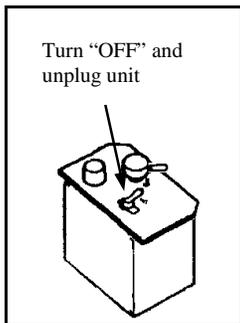
NOTE: *Using extra airless hose rather than extension cords to increase reach will result in better performance.*

OPERATING INSTRUCTIONS

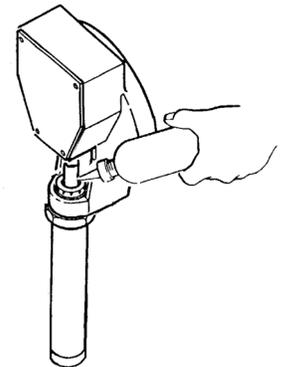
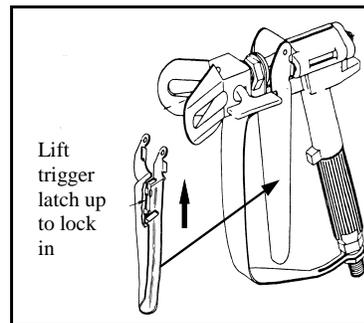
PRESSURE RELIEF PROCEDURE

Always adhere to the following procedure whenever you shut off the sprayer, examine or work on any part of the spray system, work on the spray gun or whenever you have finished spraying. Failure to do so could result in serious bodily injury or electric shock.

1. Turn unit's (on control box) ON/OFF switch to "OFF".
2. Unplug the sprayer.
3. Trigger the gun into a metal pail while firmly holding a metal part of the gun to the pail.
4. Insert prime valve bleed tube into the container.
5. Open prime valve and allow contents to drain into waste container.
6. Engage gun trigger lock.



Turn counter-clockwise



PRIMING & SPRAYING

1. **Check packing nut and piston pump lubricant.** Ensure that the packing nut reservoir is at least 1/2 full of piston pump lubricant (4-02-40-3PL1) at all times. This will help prevent buildup of materials on the piston rod thus extending packing life. Use hammer and center punch to tighten packing nut (ref# 20) until material stops leaking. Do NOT over tighten.
2. **Flush the pump with the correct thinner for the paint being used.** A new or previously used unit may contain a storage solution which is incompatible with product to be sprayed. Flush unit per the instructions to follow. Use a thinner compatible with the new material to be sprayed.
3. **Prime the unit with paint, as follows:**
 - A. Pour the paint through a H.E.R.O. strainer bag into the 5 gallon pail you will be siphoning from.
 - B. Put the siphon assembly (ref# 2) into the paint pail.
 - C. Turn bleed valve handle (ref# 48) clockwise to the fully closed position.
 - D. Lower the pressure setting by turning the pressure control knob (ref# 94) all the way counter-clockwise.
 - E. Disengage gun trigger lock.
 - F. Insert prime valve bleed tube (ref# 53) into a waste container. Open bleed valve, turning handle clockwise fully.
 - G. Turn the motor on/off switch to on; slowly turn the pressure adjustment knob (ref# 94) clockwise until the pump starts. Continue as above to discharge air from spray system, and fluid is exiting the bleed hose. Closed valve, after approximately one minute of continuous fluid flow
 - H. While firmly holding a metal part of the gun against a metal container; trigger the gun until all air is discharged from the spray system and paint is spraying from the gun. Release trigger and engage trigger lock.
4. **Adjust Spray Pattern.** Spray a test pattern. Begin by spraying a test pattern onto old newspaper or other scrap material. Increase pressure, slowly at first, by turning pressure control knob (ref# 94) clockwise until spray pattern is uniform from top to bottom and fully atomized. If heavy areas are still visible at maximum pressure, thin product according to the product manufacturer's recommendations.

1.3 AIRLESS SPRAY PAINTING SUGGESTIONS

A good airless spray application is the result of many factors. Surface preparation, which includes cleaning and degreasing, priming, material compatibility, quality finish product and correct application technique. All are all important to the finished results.

The key to all good applications is a good spray gun technique. Your skill and abilities are as important as good equipment and good paint. Proper application techniques can easily be learned by using the following simple guidelines. Practice your technique on scrap cardboard or old newspaper until you feel confident.

For best results, read and practice these techniques.

1. Always strain paint through a H.E.R.O. strainer bag.
2. Always spray at the lowest pressure setting which will provide a uniform spray fan. Once you have primed the unit with paint, slowly adjust the pressure control knob clockwise, to increase the operating pressure, until the spray fan is consistent from top to bottom with no 'heavy' areas. Spray a test pattern on a sheet of waste paper to check. If 'heavy' areas are still visible at the maximum pressure setting, thin the paint according to manufacturer's recommendations. FIG. 1
3. Always keep the spray nozzle at right angles to and approximately 12" from the surface being painted. Angling or arcing the nozzle toward the surface will cause uneven coverage and excessive over spray. FIG.2.
4. Always move the gun parallel to the surface being painted, at a consistent speed. This avoids uneven coverage (thick or thin areas). FIG.3
6. Always start the spray stroke before triggering the gun, and release the trigger before completing the stroke. This avoids heavy buildup of paint at either end of the spray stroke. FIG. 4
7. Always lap your spray patterns one half. This assures full coverage of the surface being painted.

FIG. 1

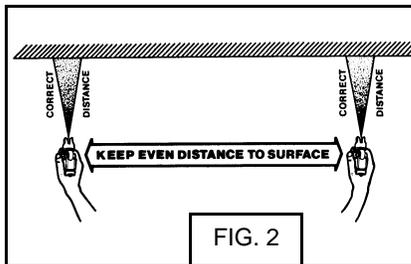
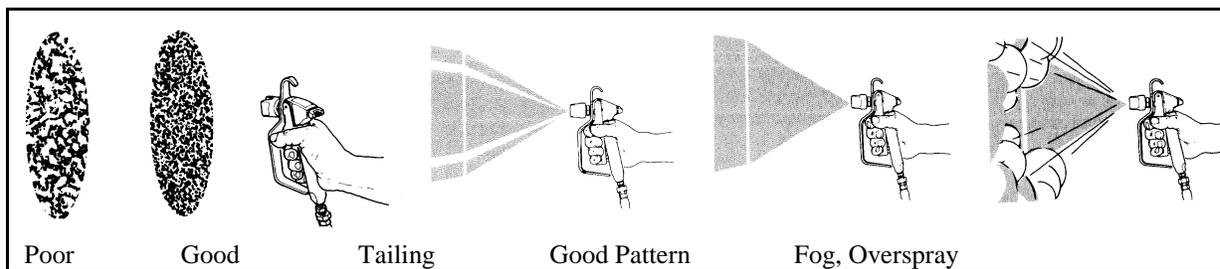


FIG. 2

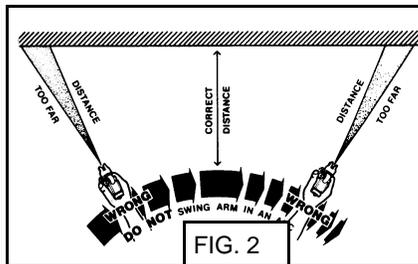


FIG. 2

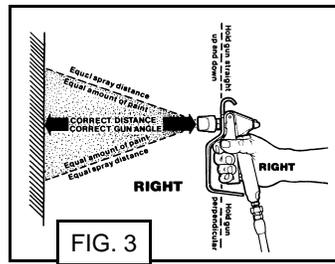


FIG. 3

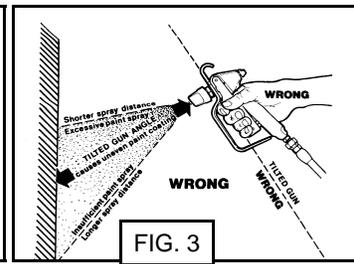


FIG. 3

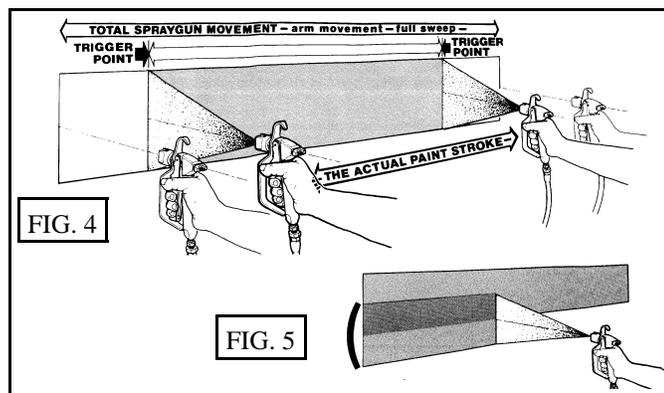


FIG. 4

FIG. 5

1.4 SHUTDOWN AND GENERAL MAINTENANCE

1. Check the packing nut and piston pump lubricant daily.

Follow the pressure relief procedure on page 7.

Ensure that the packing nut reservoir is at least 1/2 full of piston pump lubricant at all times. This will help prevent buildup of material on the piston rod and it will extend packing life. Use hammer and center punch to tighten packing nut to prevent leaking, not tighter.

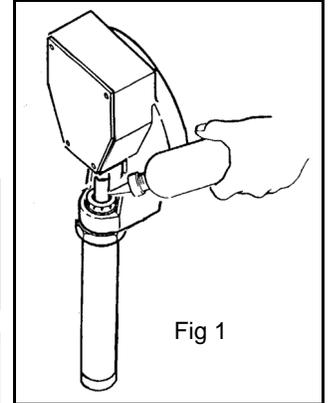
2. If shutting down for a short period of time:

It is sufficient to immerse the gun in a container of the correct thinner with the trigger locked after following the pressure relief procedure.

3. Flush the sprayer at the end of each work day.

Refer to flushing procedure below.

NOTE: To add oil. Simply drizzle oil down piston rod to fill reservoir. See fig 1



1.5 FLUSHING PROCEDURE

Follow the pressures relief procedure on page 6.

1. Remove and clean gun filter
2. Flush sprayer without filter screen installed.
3. Close prime valve.
4. Pour a gallon of the correct thinner into a clean 5 gallon pail.
5. Insert the intake tube into the pail.
6. Turn pressure control knob all the way counter-clockwise.
7. Point prime valve bleed tube into 5 gallon pail. Turn the pump on and slowly increase the pressure until sprayer starts. Open prime valve, turning knob counter-clockwise. Allow thinner to circulate back into the pail for a short period to flush the pump
8. Close the prime valve.
9. While firmly holding a metal part of the gun against a metal waste container, trigger the gun into a separate waste container. Keep the gun triggered until clean solvent is sprayed from the gun. Release the trigger and engage the safety lock
10. Remove the intake tube from the pail. Trigger the gun once again to discharge thinner from the hose. Do not let the pump run dry for more than a minute, or damage to the pump packing could result.
11. Re-install the gun filter.
12. Repeat steps 3-9 with clean solvent.
13. Turn the on/off switch off, unplug the sprayer power cord and open the prime valve.

NOTE: NEVER LEAVE THE UNIT UNDER PRESSURE WHEN NOT SPRAYING (MOTOR TURNED OFF). RELIEVE PRESSURE BY TRIGGERING GUN.

NOTE: NEVER STORE THE UNIT WITH PAINT OR WATER IN THE PUMP SYSTEM, EVEN OVERNIGHT!

2.0 TROUBLESHOOTING

TROUBLE	POSSIBLE CAUSE	REMEDY
Motor will not start or run	<ol style="list-style-type: none"> 1. Unplugged 2. Unit not switched on 3. No electricity. 4. Faulty or improper extension cord 5. Pressure setting too low. 6. Pump at full pressure. 7. Motor or pump seized. 	<ol style="list-style-type: none"> 1. Plug unit in. 2. Turn "on/off" switch to on position 3. Check at receptacle for 115V. AC. If no voltage present, check fuse or circuit breaker 4. Plug directly to power source. 5. Increase pressure setting, until pump starts. 6. Follow "pressure relief instructions" 7. Turn motor fan to check if seized. If seized unplug unit, follow pressure relief procedures and check the following;
Motor turns, but poor performance.	<ol style="list-style-type: none"> 1. Fault in pump section. 2. Worn spray tip. 3. Improper tip size. 4. Material too viscous (thick). 	<ol style="list-style-type: none"> 1. See section 3.1 2. Replace tip. 3. Replace tip. 4. Thin material with appropriate thinners,
Unit does not prime	<ol style="list-style-type: none"> 1. Worn packings. 2. Air leak. 	<ol style="list-style-type: none"> 1. Re-pack pump. 2. Check the following; <ul style="list-style-type: none"> ⇒ Intake tube connections. ⇒ Plugged intake screen. ⇒ Intake Teflon O-ring. 3. Add paint to pail.
Unit does not prime	<ol style="list-style-type: none"> 3. Paint level too low. 4. Prime Valve clogged. 5. Paint too thick. 6. Valve ball stuck or glued. 	<ol style="list-style-type: none"> 4. Disassemble and clean. 5. Thin material with appropriate thinners, per product manufacturer's instructions 6. Replace worn balls and / or seats.
No Output	<ol style="list-style-type: none"> 1. Pump not primed. 2. Pump needs rebuilding. 3. Broken drive parts; con-rod pin, piston rod, valve. 	<ol style="list-style-type: none"> 1. Prime pump. 2. Rebuild pump. 3. Repair as required.

a) Fault in pump section

Check for leak past lower packing set as follows;

Remove the pump shroud and housing cover to reveal the con-rod (ref # 57).

Under pressure, when the gun trigger is released, the con-rod should remain stationery. If the con-rod moves toward the top, the fluid section (ref # 3) needs re-packing.

3.1 REPAIR PROCEDURES FLUID SECTION

TOOLS NEEDED:

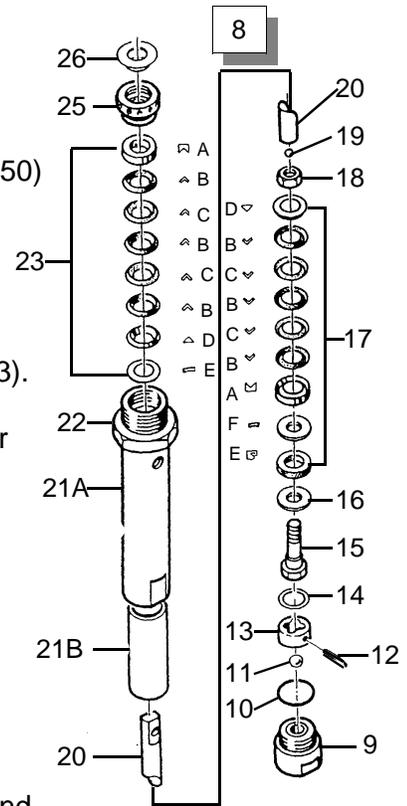
- ☑ Vise, 2" adjustable wrench, screwdriver, hammer, pipe wrench
center punch, brass drift, 11/16", open end wrench

3.1.1 Removing the Fluid Section

1. Stop pump, with piston rod (ref # 20) in lowest position, and unplug pump.
2. Unscrew hose (ref# 29) from pump outlet nipple (ref# 28).
3. Push retaining spring (ref# 52) upward from coupler (ref# 53) to allow pin (ref# 50) removal. Remove pin by driving from coupler using a hammer and center punch.
4. Undo locknut (ref# 22), and unscrew body (ref# 8) from housing (ref# 59).

3.1.2 Pump Disassembly

1. With pump upside-down in vise on flats, unscrew intake valve nut (ref# 9) and remove white Teflon o-ring (ref# 10). Remove ball (ref# 11) and ball guide (ref# 13).
Note: Pin (ref# 12) in ball guide is loose.
2. Rotate pump to normal position and clamp body on flats with vise. Using center punch, remove packing nut (ref# 25).
3. Gently tap piston rod (ref# 20) down with rubber or plastic mallet and drive piston through bottom.
4. Remove "Upper" throat packings (ref# 23).
5. Put flats of piston rod (ref# 20) upside down in vise and secure. Unscrew piston valve (ref# 15) and remove ball (ref# 19).
6. Remove locknut (ref# 18) and piston packings (ref #17) and washer (ref# 16) from piston valve.



3.1.3 Assembly

1. Inspect piston rod (ref #20) and cylinder sleeve (ref# 21) for scoring or wear and replace if damaged.
2. Place piston packings (ref# 17) as shown in 'Pump Drawing' on piston valve in the following sequence; brass adapter (ref # 16), poly vee (ref# 17E), washer (ref# 17F), female gland (ref#17A), plastic (ref# 17B), leather vee (ref# 17C), plastic vee (ref # 17B), leather vee (ref#17C), plastic vee (ref# 17B) male gland (ref #17D).
3. Thread and tighten locknut (ref # 18) firmly onto the packings to compress and seat packings into place. Back off piston valve locknut and retighten until the top seal (ref# 17D) rotates.
4. Place piston rod (ref #20) in vise on flats and insert ball (ref# 19) into rod. Place one drop of thread locking compound (Loctite 271) on threads of piston valve (ref# 15) and thread and tighten piston valve to rod, **Note**; Use a 11/16" wrench to stabilize the locknut (ref# 18 must not move), while tightening piston to rod approximately 20 ft. lbs (27 N-M) .
5. Lightly grease piston and cylinder. Insert piston, slightly rocking in a circular motion into cylinder, taking care not to damage packing.
6. Put cylinder on flats in vise upside down. Install a new copper crush washer (ref# 14), ball guide (ref # 13), with pin (ref # 12), ball (ref # 11) and intake valve housing (ref # 9) with new Teflon o-ring (ref # 10) until flat of nut meets flat of cylinder.
7. Remove cylinder and rotate to normal position on flats in vise. Install throat packings, one at a time, over piston rod and into cylinder until they meet the step on cylinder, in order as shown in 'Pump Drawing,' Brass washer (ref# 23E), male gland (ref# 23D), plastic 'vee' (ref# 23B), leather (ref# 23C), plastic vee (ref# 23B), leather (ref# 23C), plastic vee (ref# 23B), female gland (ref# 23A).
8. Thread packing nut (ref# 25) complete with throat plug (ref# 26) into cylinder. Firmly hand tighten. Later, if packings leak, tighten 1/4 turn to stop leak.
9. Re-install swivel (ref # 28) which was removed in step 5 with Teflon tape.

Thread the rebuilt fluid section into the aluminum drive housing completely to the end of the thread. Rotate the pump out in order to position the outlet fitting (ref# 52) pointing to the control box/transducer tee, in line with the motor.

3.2 PRESSURE SENSOR

Removal

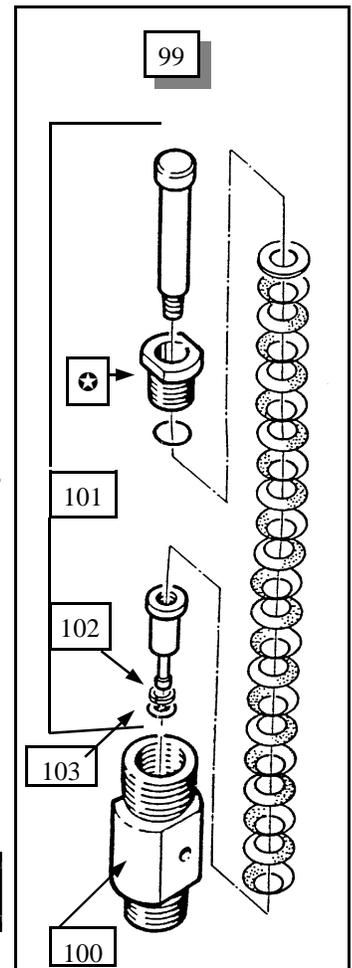
1. Unthread swivel nut (ref# 23) connecting the pressure sensor tee (ref# 25)
2. Unthread and disconnect paint outlet hose (ref# 24) at pressure sensor tee .
4. Remove pressure sensor (ref# 99) and tee (ref# 25) from the control box using a 5/8" wrench.

O-Ring Replacement (ref #102, 103)

1. Place sensor (ref #99) in vise and clamp securely. Unthread nut and remove upper sensor assembly.
2. Replace back-up ring (ref #103) and O-Ring (ref# 102).
3. Apply grease to new O-rings. Carefully thread upper sensor assembly (ref# 101) back into the sensor housing, (ref# 100) using on the packing nut threads.

Re-assemble

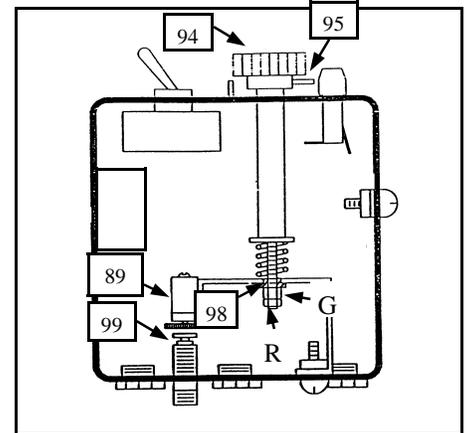
1. Wrap Teflon tape on threads and thread the sensor into the tee tightly. But do not over tighten.
2. Rotate pressure control knob (ref# 94) to what would be maximum pressure setting and thread pressure sensor into control box using 5/8" flats.
3. Tighten the tee until the swivel (ref# 20) is parallel to chassis.
4. Thread and tighten outlet hose to tee.
5. Follow pressure control calibration instructions to reset maximum pressure on the pump (see page 18).



3.3 PRESSURE CONTROL CALIBRATION

WARNING: *Never perform any operation to the inside of the control box while the unit is plugged in or serious electric shock could occur.*

1. Attach a pressure gauge to the pump along with a minimum of 50' of nylon airless hose.
2. Unplug the pump and remove the control box cover
3. Using two 3/8" insulated wrenches, loosen the locking nut (ref# R) on the adjustment stem.
4. Loosen the nylock adjustment nut (ref# GG) approximately two turns.
5. Turn the brass pressure control knob (ref# 94) to the minimum pressure and plug the pump in.
6. Follow the procedure described in this manual to prime the pump.
7. Turn the pressure control knob (ref# 94) clockwise to a maximum pressure of 2700psi. If the control knob reaches maximum position (fully clockwise to stop pin) prior to 2700psi pressure, unplug the unit and using an insulated 3/8" wrench tighten the nylock adjustment nut (ref# GG). If 2700psi pressure is obtained prior to the brass adjustment knob reaching maximum position, unplug the unit, and using a 3/8" insulated wrench, loosen the nylock adjustment nut (ref# GG).
8. Plug the unit in and check that the maximum possible pressure setting is 2700psi (100psi).
NOTE: *To get an accurate reading, release the pressure and allow the pump to rebuild pressure each time the pressure control knob is moved. Repeat step 7 until the 2700psi (100psi) maximum pressure setting is obtained.*
9. Tighten the locking nut (ref# R) against the nylock adjustment nut (ref# GG).
10. Reinstall the control box cover.



4.0 SPRAY TIP SELECTION

It is advisable to obtain a spray tip recommendation from the supplier of the material to be sprayed. The following table is a general guide and will assist in selecting the optimum tip to use.

TIP SIZE	USED TYPICALLY FOR SPRAYING THESE MATERIALS	APPROX. GPM
.021	Exterior Latex on large unobstructed areas. (max. size allowed) (60 OZ.)	
.018	Interior Latex, Exterior Latex, Shake Paint, Exterior Flat Paints. (46 OZ.)	.28
.015	Alkyd Flat Enamel, Interior Latex, Semi-Gloss Enamel, Stains. (30 OZ.)	.22
.013	Fine ground Gloss Enamels, and good quality Stains. (23 OZ.)	.18
.011	Clear Varnishes and Lacquers. (15 OZ.)	.15
.009	Clear Varnishes and Lacquers. (10 OZ.)	.10

NOTE: In order to test if a tip is worn, spray a small amount of suitable material on to a test surface and observe the spray pattern produced on the wall. Try to obtain an even elliptical spray pattern by first adjusting the pressure down, then gradually increasing pressure until full atomization. This should result in a crisp spray pattern with sharp edges and even concentration, see diagram below. If a satisfactory pattern is unattainable (look for edges to be rounded with heavier concentration), then the tip is worn and should be replaced. Other causes of poor spray fan are insufficient spray pressure and material viscosity (requiring thinning).



NOTE: Use of excessively worn tip can result in apparent poor performance of pump.

ORIFICE SIZE

All tips are rated by the size of the orifice or bore size. The bore size is measured in thousandths of an inch (.018 = 18 thousandths of an inch). The size of tip required is based on the consistency of the material to be sprayed. The thicker the paint, the larger the tip size required. Always consult the product label or ask the paint retailer for the manufacturer's recommendations with regard to proper tip sizes.

FAN WIDTH

Fan width or pattern width is determined by the spray tip's "fan width" classification. This size is measured in inches, and is determined when spraying 12 inches from the spray surface. Various methods of noting the fan widths are used by tip manufacturers. Ask your distributor for assistance.

NOTE: Two tips having the same tip size, but different fan widths will deliver the same amount of paint over a different area (wider or narrower strip).

SPRAY TIP REPLACEMENT

During use, especially with Latex paint, high pressure and material abrasion will cause the orifice to grow larger. As the orifice grows larger, the fan width grows smaller. Replace tips before they become excessively worn. Worn tips waste paint, cause over spray, make cutting in difficult, and decrease sprayer performance.

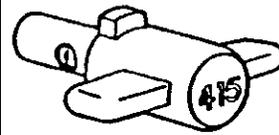
NOTE: When using Latex paint, a spray tip will wear at the rate of one size for approximately every 100 gallons of material sprayed.

5.0 ACCESSORIES

1/4x1/4	CONNECTOR, 1/4 PAINT HOSE TO 1/4 PAINT HOSE
106	RUBBER BAN
114	HOSE, AIRLESS PAINT 50' X 1/4"
115	HOSE, AIRLESS PAINT 25' X 1/4"
117	HOSE, AIRLESS PAINT 50' X 3/8"
3-WHIPEND	WHIPEND, 3' X 3/8"
10-55-011-2	AIRLESS SPRAY GUN, ASM, 2 FINGER TRIGGER
10-55-011-4	AIRLESS SPRAY GUN, ASM, 4 FINGER TRIGGER
5GAL SB	STRAINER BAG, 5 GALLON
4-649	WONDER WASH (48 PCS X 1.5 OZ. PKG)
4-650	WONDER WASH 5 OZ. PKG.
4-655	WONDER WASH (25 PCS X 5 OZ. PKG)
4-660	WONDER WASH BULK, 5 LBS.
4-662	WONDER COAT, 1 LITRE
4-664	WONDER COAT (12 PCS X 1 LITRE)
661	SPRAY TRIGGER, FOR USE WITH 4-662
4-666	WONDER COAT, 4 LITRE
4-668	WONDER COAT (4 PCS X 4 LITRE)
4-67/19	PRESSURE GAUGE C/W FITTINGS
4-02-40-3PL1	PISTON PUMP PACKING LUBRICANT, 250ML

A.S.M. ZIP TIPS

Zip tips are coded with three(3) numbers. To determine the fan size, double the first number (ie. $2 \times 4 = 8$ " - 10" width). The last two(2) numbers indicate the equivalent orifice size. The 415 tip shown has a 8"-10" fan width and a .015 orifice.



0906	1104	1304	1504	1704		1904	2104	2310	3104
	1106	1306	1506	1706		1906	2106	2312	3110
	1108	1308	1508	1708		1908	2108	2510	3112
	1110	1310	1510	1710	1810	1910	2110	2712	3710
		1312	1512	1712	1812	1912	2112	2910	
						1916	2116		
							2118		

OTHER FAN SIZES ALSO AVAILABLE, BUT NOT ALWAYS STOCKED

HERO ADVANTAGE GOLD 550 PART LIST

REF #	PART#	DESCRIPTION
1	4-02-450-2500	SYPHON ASSEMBLY
2	187A	SYPHON SCREEN
3	02-450-2100	TUBE
4	4-02-450-2508	HOSE 20"
5	1/75-3	CLAMP
6	02-450-2101	ELBOW
7	667-26	INTAKE SWIVEL
8	4-02-500-2500	FLUID SECTION
9	02-40-2001	INTAKE VALVE
10	02-40-2003	O-RING
11	02-40-2004	INTAKE BALL
12	02-40-2005	PIN
13	02-40-2006	BALL GUIDE
14	02-40-2007	CRUSH WASHER
15	02-40-2008	PISTON VALVE
16	02-40-2010	PISTON WASHER
17	4-02-40-2509	LOWER PACKING
18	02-40-2017	PISTON VALVE NUT
19	02-40-2018	PISTON BALL
20	02-40-2019	PISTON ROD
21	4-02-40-2506	CYLINDER ASS.
21A	02-40-2021	INTAKE CYLINDER
21B	02-40-2020	SLEEVE
22	02-40-2022	LOCK NUT
23	4-02-40-2503	UPPER PACKINGS
24	4-02-40-2510	PACKING KIT
25	02-40-2027	PACKING NUT
26	02-40-2028	PLUG
27	4-02-40-3PL1	LUBRICANT
28	20	SWIVLE
29	03-40-3000	OUTGO HOSE
30	03-40-3010	ELBOW
31	03-40-3001	TEE
32	13-1	TEE
33	03-600-101	ELBOW 90
34	4-606	PRIME VALVE
35	606-2	BODY
36	603-6	BARB
37	4-606 RK	KIT
38	11A-3CP	WASHER
39	11A-4	SEAT
40	11A-5	BALL

REF #	PART#	DESCRIPTION
41	606-10	STEM
42	606-1	BODY
43	HW-4053	NUT
44	606-8	O-RING
45	606-15	BACK UP O RING
46	4-606-9	HANDLE C/W PIN
47	196	CLAMP
48	4-03-450-3503	HOSE PRIME
49	188	CABLE TIE
50	05-40-5001	PIN
51	4-05-400-353	CROSS HEAD
52	05-40-5000	SPRING
53	05-40-5055	COUPLER
54	4-05-40-5517	PIN
55	4-05-40-5500	CON ROD ASSEM
56	05-40-5004	BUSHING
57	05-40-5005	CON ROD
58	05-40-5006	BEARING
59	4-05-450-5501	HOUSING
60	05-40-5009	BEARING
61	05-40-5010	BUSHING
62	05-40-5011	BEARING
63	05-40-5012	WASHER THRUST
64	4-05-450-5502	CRANK SHAFT
65	667-43-3	BALL
66	4-05-40-5503	REDUCER SHAFT
67	05-400-307	WASHER THRUST
68	05-40-5016	BEARING
69	05-40-5020	PIN
70	4-05-500-360	MOTOR C/W 60,68
71	4-05-40-5507	CORD
72	4-05-450-356A	CONTROL BOX
73	05-40-5026	PIN
74	05-40-5027	KNOB
75	05-40-5028	POST
76	05-40-5029	SPRING
77	05-40-5030	BUSHING
78	05-40-5033	BRACKET
79	05-40-5047	MICRO SWITCH
80	05-40-5050	MOUNT
81	65/102	SWITCH
82	65-110	PLATE ON/OFF

HERO ADVANTAGE GOLD 550 PART LIST

REF #	PART#	DESCRIPTION
82	65-110	PLATE ON/OFF
83	65/111	CONNECTOR
84	4-05-40-5508	POWER CORD
85	4-05-40-5534	PRESSURE SENSOR
86	05-40-5039	HOUSING
87	4-05-40-5505	STEM ASSEM.
88	05-40-5042	O RING
89	05-40-5038	BACK UP WASHER
90	4-06-250-6504	MOTOR MOUNT
91	4-06-450-6502	BRACKET
92	06-40-6016A	HOUSING
93	06-40-6020	GASKET
94	4-06-40-6514	COVER
95	4-06-450-6501	BRACKET
96	06-250-6103	LEG
97	06-250-6101	GLIDE
98	4-06-40-6506	COVER
99	4-06-450-6505	HANDLE
100	06-250-6102	GRIP
101	06-440-416	PLUG
102	DEC-550	DECAL
103	DECMAXPSI	DECAL
105	05-40-5041	SOLID STATE RELAY

HERO ADVANTAGE GOLD 550

