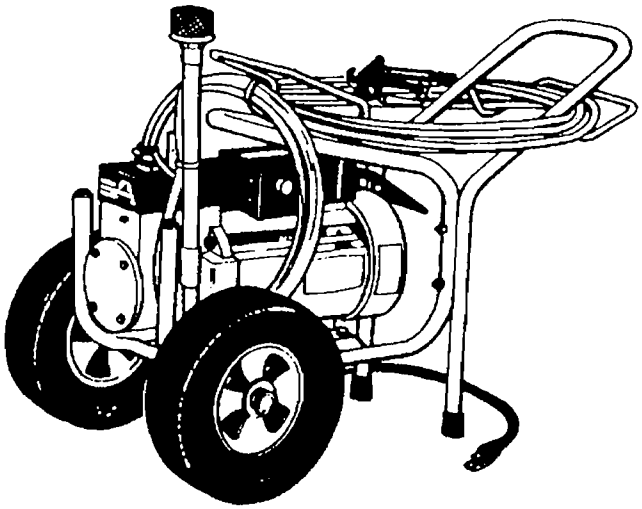
AIRLESSCO®

MODEL 3200

AIRLESS PAINT SPRAYER



OPERATION MANUAL AND PARTS LIST

for Model 3200 Electric Airless Paint Sprayer

WARNING !!

HANDLE THIS UNIT AS YOU WOULD A LOADED FIREARM!
The high pressure spray can cause extremely serious injury.
OBSERVE ALL WARNINGS!

Before operating this unit, read and follow all safety warnings and instructions related to the usage of this equipment. READ, LEARN and FOLLOW the Pressure Relief Procedure on Page 6 of this manual.

All Service Procedures to be performed by Authorized Airlessco Service Center ONLY.

NO MODIFICATIONS or alterations of any AIRLESSCO Equipment or any AIRLESSCO part is allowed.

AIRLESSCO BY DUROTECH CO.
P.O. Box 8006, Moorpark, CA. 93020-8006, Ship to: 5397 Commerce Ave., Moorpark, CA 93021 Tel: 805-523-0211
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PAINT PREPARATION

Prepare the paint according to the manufacturer's recommendations and directions. Always follow paint and solvent manufacturers safety precautions carefully.

Remove any skin on previously opened paint. Stir paint thoroughly to dissolve hard pigments. Strain the paint through a fine nylon mesh bag to avoid clogging of gun filter or spray tip. DO NOT USE ABRASIVE, AGGREGATE OR FIBRE FILL PAINT.

Most paints do not have to be thinned in order to be sprayed. However, it is possible that you may use a paint that is too thick to be sprayed. If thinning is required, add water to latex-based paint, and add solvent to oil-based paint. Check paint label for proper thinning information.

INTRODUCTION

The 3200 airless paint sprayers are the second generation of pumps which combine the mechanical reliability of the pump's long years of service in the tough contractor and rental market, with precision solid state electronics.

SPECIFICATIONS:

Model 3200 - 3/4 HP A/C 11 amp totally enclosed fan cooled motor, 1/2 GPM, 0-2500 PSI
Max. Tip Size 0.021 inch

OPERATION

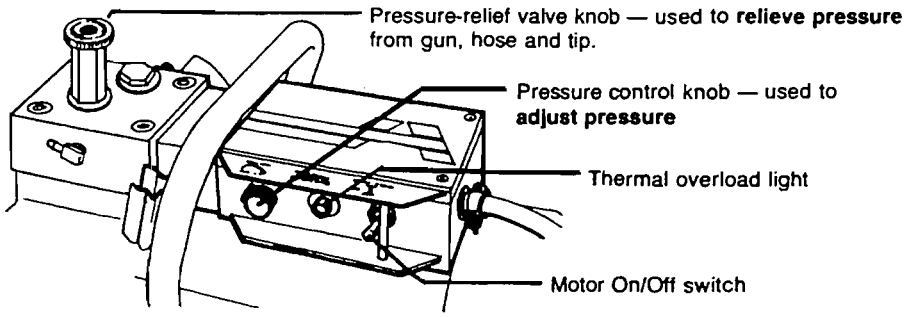
IMPORTANT: Before operating sprayer, read and understand all warnings on pages 5, 6 and 7 and learn and use the pressure relief procedure on page 6.

Pressure Relief Valve: The Pressure Relief Valve is used to relieve pressure from the gun and hose and to allow the machine to prime. To prime or relieve pressure, turn the Pressure Relief Valve knob fully counterclockwise. To spray, after the machine has primed, turn Pressure Relief Valve Knob fully clockwise to "Pressure".

Pressure Control Knob: The Pressure Control Knob is used to increase or decrease the pressure in the hose and gun. To increase pressure, turn the Pressure Control Knob clockwise. To reduce pressure turn the Pressure Control Knob counterclockwise. As soon as the machine reaches the pressure set with the Pressure Control Knob, the motor will switch off. Then as you start to spray and the pressure drops, the motor will switch back on. The motor will only run when you are spraying or when the Pressure Relief Valve Knob is turned to "Prime".

Thermal Overload Light: The 3200 uses an automatic thermal overload system. Should the unit over- heat, the thermal overload protector will automatically switch off the motor. If this should happen the Thermal Overload Light will come on. When this happens switch the motor off, relieve the pressure in the pump and wait for the motor to cool down (30 minutes). The thermal overload will automatically reset itself. A very long extension cord or an extention cord that is too light could cause the machine to overload. Note: Extension cords must be 3 wire, 12 guage minimum and not longer than 25 Ft.

On/Off Switch: Switch ON to run and OFF to stop. Prior to starting, read, understand and observe all safety precautions and warnings in your instruction manual.



SETTING UP AND STARTING

NEW UNIT

Note: Extension cord must not exceed 25 ft. of 12/3 or 50 ft. of 10/3.

1. Connect suction and return hose. Firmly tighten suction clamp to prevent air being drawn in. An air leak may cause priming problems.
2. Attach high pressure *airless* hose (conductive-grounded) to the spray gun.

   NOTE: Do not use less than 50 feet or more than 250 feet of airless hose.
3. Set the trigger lock on the gun.
   See instructions: Spray tip assembly.
   Read all warnings and safety information in this manual and all warnings attached to your equipment.
4. Be sure the switch is in "OFF" position, then plug into an approved power supply that agrees with motor rating plate. If using an extension cord,* it must be 3 wire, 12 gauge minimum with safety ground plug and socket.
   *Not longer than 25 feet.

USA	115 VAC/15 amp
EUROPE	220 VAC/15 amp
AUSTRALIA	240 VAC/10 amp
5. Turn the Pressure-Relief Valve Knob located on the head of the pump counterclockwise (to prime).
6. Turn the motor switch "ON."
7. Put suction hose into a bucket with thinner or water and wait until a steady stream of flushing material comes out of the return hose (small hose). This is merely to flush out your machine prior to use. (Every new machine was flushed in oil prior to shipping).
8. Remove the suction and return hose from the flushing material and place them into your paint. (See instruction: "PAINT PREPARATION."
9. Now prime your unit turning the Pressure-Relief Valve Knob on the pumphead to the "PRIMING" position (counterclockwise). Allow unit to prime until all air has been removed from the suction tube and pumphead.
10. Turn Pressure-Relief Valve Knob fully clockwise.
11. Turn the Pressure Control Knob on the black box clockwise to increase pressure.
    NOTE: Electric Motor stops when set pressure is reached.
12. Test spray pattern by spraying onto waste material (cardboard). Correct pressure is when heavy lines on the edge of the spray pattern disappear.
13. Machine is now ready to spray.

PREVIOUSLY USED UNIT

Since the unit is filled with flushing material for storage, it must be pushed out by paint or solvent only, before spraying. To do this adjust the Pressure-Relief Valve to PRIME position, put the siphon tube into a bucket of thinner or paint and turn the unit on. Wait until steady stream of paint emerges from the return hose (smaller dia. plastic tubing) back into the bucket. Then turn the Pressure-Relief Valve Knob fully clockwise to "Pressure." Adjust pressure by turning Pressure Control Knob clockwise.

SPRAYING

See instructions: Spray gun operation
Spraying technique
Spray tip selection

WHEN YOU STOP SPRAYING release the pressure by turning the Pressure-Relief Valve Knob counterclockwise to PRIME and turn the motor OFF. Immerse the gun into a bucket filled with a suitable thinner to prevent drying of the paint in the gun's nozzle. If you stop spraying for a longer period of time, follow instructions for cleaning of AIRLESSCO sprayer.

The most important rule:
Flush your machine immediately after use with a 50/50 mixture of mineral spirits and oil OR corochek.

SPRAYING OR CLEANING WITH FLAMMABLE PAINTS OR THINNERS

1. When spraying with flammable liquids, the AIRLESSCO 3200 must be located a minimum of 25 feet away from spraying area, in a well ventilated area. Ventilation sufficient enough to prevent accumulation of vapors must be provided.
2. To eliminate electrostatic discharge, ground AIRLESSCO unit, paint bucket and spraying object. Use only high pressure airless hoses approved for 3000 PSI which is conductive.
3. Remove spray tip before cleaning gun and hose. Make contact of gun with bucket and spray without tip, in ventilated area, into the grounded steel bucket 25 feet away from AIRLESSCO unit, do not spray with high pressure while cleaning.
4. Do not smoke in spraying area.

SPRAYER CLEAN UP

PROPER CLEAN UP IS EXTREMELY IMPORTANT in the maintenance of your new airless paint sprayer. At the day's end, or with the completion of the job, the sprayer and system (gun and hose) must be flushed and cleaned to prevent paint residue from hardening or clogging the system. Rust can also damage the internal parts if water or latex paint is left in the sprayer. So it is extremely important that a final flush of either Coro-Chek or a 50/50 mixture of mineral spirits and oil is used.

Clean the sprayer initially with water, if latex paint was used, followed by Coro-Chek, which is left in the unit. Flush with an appropriate solvent if oil-based paint was used. (Refer to paint can label for manufacturer's recommendation.)

IMPORTANT: Always clean and flush the sprayer using LOW PRESSURE.

FOR LONG TERM STORAGE and STORAGE OVER THREE DAYS, the sprayer should be flushed and "loaded" with a 50/50 mixture of mineral spirits and oil to prevent rust and damage to the internal parts. **DO NOT LEAVE CORO-CHEK** in system for over three days as it will dry out leaving crystals in your unit. **DO NOT LEAVE WATER OR PAINT** in the sprayer, even for a few hours.

THE MOST IMPORTANT RULE: Clean your Airlessco sprayer immediately after use!

Tools and Materials required for clean up.

1. Soft bristle brush and clean up rags.
2. 8" crescent wrench for removing gun tip and filter in gun handle.
3. Prepared 5 Gal. bucket of soapy water if using latex, or thinner if using oil base. If using latex, a second bucket of water is required.
4. If using latex, a packet of Coro-Chek mixed with one gallon of water or if using oil based or for storage over 3 days, use 50/50 mixture of mineral spirits and oil.
5. Tapes or ties to secure hose and gun
6. Empty bucket or container.

THE MOST IMPORTANT FIRST STEP OF THE CLEAN UP PROCEDURE IS TO RELEASE PRESSURE FROM THE SYSTEM by following the Pressure Relief Procedure on page 6 of this manual.

1. Release the pressure by turning the Pressure-Relief Valve Knob counterclockwise to allow the excess paint to return to the bucket.
2. Remove the tip from your gun and place the tip in a thinner or water depending on the type of paint you are using.
3. Remove the suction and return hoses from the paint and hold them above the bucket.
4. Start the unit.
5. Wait until there is no more paint leaving the return hose.
6. Place the suction and return hoses in a bucket of water (when using a water base paint) or in a thinner suitable to the paint (when spraying with an oil base material).
7. Prime and flush the pump thoroughly. Trigger the gun above the paint bucket and adjust very low pressure while holding gun open. Flushing liquid will push the rest of the paint out of the spray hose into the paint bucket. When all paint is displaced return gun back to flushing liquid bucket. Continue to flush until pump, hose and gun are free of paint.

IMPORTANT: Pressure setting should be very low.

EXTREME CAUTION : Do not set high pressure! When spray tip has been removed, an airless gun becomes more dangerous, because of the greater volume of liquid that can be emitted from the outlet of the gun at high velocity.

8. Release the pressure.
9. Remove filter from filter housing and clean with thinner or water.
10. Reflush the system with Coro-Chek or mixture of mineral spirits and oil (50/50) and leave this mixture in the pump for storage. (For Long Term Storage and storage over three days see instruction above)
11. Shut off the unit and store.
12. When storing always leave the Pressure-Relief Valve knob turned completely counterclockwise.

NEVER LEAVE WATER OR PAINT IN THE UNIT, EVEN FOR A FEW HOURS.

CLEAN AIRLESSCO SPRAY GUN, FILTER IN HANDLE AND SPRAY TIP AS PER INSTRUCTIONS ON PAGE 14.

SAFETY WARNINGS

HIGH PRESSURE SPRAY CAN CAUSE EXTREMELY SERIOUS INJURY. Handle as you would a loaded firearm. Follow PRESSURE RELIEF PROCEDURE on page 6. Observe all warnings.

MEDICAL ALERT - Airless Spray Wounds

If any fluid appears to penetrate your skin, get **EMERGENCY MEDICAL CARE AT ONCE. DO NOT TREAT AS A SIMPLE CUT.**
Tell the doctor exactly what fluid was injected.

NOTE TO PHYSICIAN: Injection in the skin is a traumatic injury. **It is important to treat the injury surgically as soon as possible. DO NOT DELAY treatment to research toxicity.** Toxicity is a concern with some exotic coatings injected directly into the blood stream. Consultation with a plastic surgeon or reconstructive hand surgeon may be advisable.

INJECTION HAZARD

Fluids under high pressure from spray or leaks can penetrate the skin and cause extremely serious injury, including the need for amputation.
NEVER point the spray gun at anyone or any part of the body.
NEVER put hand or fingers over the spray tip. Do not use rag or other materials over your fingers. Paint will penetrate through these materials and into the hand.
NEVER try to stop or deflect leaks with your hand or body.
ALWAYS have gun tip guard in place when spraying.
ALWAYS lock gun trigger when you stop spraying.
ALWAYS remove tip from the gun to clean it.
NEVER try to "blow back" paint, this is not an air spray sprayer.
ALWAYS follow the **PRESSURE RELIEF PROCEDURE**, as shown on page 6, before cleaning or removing the spray tip or servicing any system equipment.
Be sure equipment safety devices are operating properly before each use.
Tighten all fluid connections before each use.

MEDICAL TREATMENT

If any fluid appears to penetrate your skin, get **EMERGENCY CARE AT ONCE. DO NOT TREAT AS A SIMPLE CUT.**
* Go to an emergency room immediately.
* Tell the doctor you suspect an injection injury.
* Tell him what kind of material you were spraying with and have him **read NOTE TO PHYSICIAN above.**

GENERAL PRECAUTIONS

NEVER alter equipment in any manner.
NEVER smoke while in spraying area.
NEVER spray highly flammable materials.
NEVER use around children.
NEVER allow another person to use sprayer unless he is thoroughly instructed on its' safe use and given this operators manual to read.
ALWAYS wear a spray mask, gloves and protective eye wear while spraying.
ALWAYS ensure fire extinquishing equipment is readily available and properly maintained.
NEVER LEAVE SPRAYER UNATTENDED WITH PRESSURE IN THE SYSTEM. FOLLOW PRESSURE RELIEF PROCEDURES ON PAGE 6.

ALWAYS INSPECT SPRAYING AREA

Keep spraying area free from obstructions.
Make sure area has good ventilation to safely remove vapors and mists.
NEVER keep flammable material in spraying area.
NEVER spray in vicinity of open flame or other sources of ignition.
Spraying area must be at least 20 ft. away from spray unit.

SPRAY GUN SAFETY

ALWAYS set safety lock on the gun in "LOCKED" position when not in use and before servicing or cleaning.
DO NOT remove or modify any part of gun.
ALWAYS REMOVE SPRAY TIP when cleaning. Flush unit with LOWEST POSSIBLE PRESSURE.
CHECK operation of all gun safety devices before each use.
Be very careful when removing the spray tip or hose from gun. A plugged line contains fluid under pressure. If the tip or line is plugged, follow the **PRESSURE RELIEF PROCEDURE** as outlined on page 6.

TIP GUARD

ALWAYS have the tip guard in place on the spray gun while spraying. The tip guard alerts you to the injection hazard and helps prevent accidentally placing your fingers or any part of your body close to the spray tip.

SPRAY TIP SAFETY

Use extreme caution when cleaning or changing spray tips. If the spray tip clogs while spraying, engage the gun safety latch immediately. ALWAYS follow the **PRESSURE RELIEF PROCEDURE** and then remove the spray tip to clean it.
NEVER wipe off build up around the spray tip.
ALWAYS remove tip & tip guard to clean AFTER pump is turned off and the pressure is relieved by following the **PRESSURE RELIEF PROCEDURE.**

TOXIC FLUID HAZARD

Hazardous fluid or toxic fumes can cause serious injury or death if splashed in eyes or on skin, inhaled or swallowed. Know the hazards of the fluid you are using. Store & dispose of hazardous fluids according to manufacturer, local, state & national guidelines.
ALWAYS wear protective eyewear, gloves, clothing and respirator as recommended by fluid manufacturer.

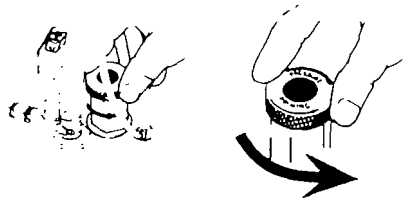
SAFETY WARNINGS

PRESSURE RELIEF PROCEDURE

To avoid possible serious bodily injury, including injection, always follow this procedure whenever the sprayer is shut off, when checking or servicing it, when installing or changing the tips, and whenever you stop spraying

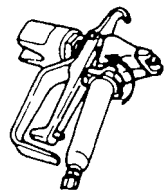
1. Turn machine off and disconnect the power cord.

2. Turn the Pressure-Relief Valve Knob to "Prime" position.



3. Trigger the gun.

4. Turn gun lock to locked position.



Lock Gun Trigger

If the spray tip or hose is clogged, follow Step 1 through 4 above. Expect paint splashing into the bucket while relieving pressure during Step 2. After following all 4 steps above it is safe to remove the tip from the gun to clean.

HOSES

Tighten all fluid connections securely before each use. High pressure fluid can dislodge a loose coupling or allow high pressure spray to be emitted from the coupling and result in an injection injury or serious bodily injury.

Use only hose having a spring guard. The spring guard helps protect the hose from kinks or other damage which could result in hose rupture and cause an injection injury.

NEVER use a damaged hose, which can result in hose failure or rupture and cause an injection injury or other serious bodily injury or property damage. Before each use, check entire hose for cuts, leaks, abrasion or bulging of cover, or damage or movement of couplings. If any of these conditions exist, replace the hose immediately. Never use tape or any device to try to mend the hose as it cannot contain the high pressure fluid. NEVER ATTEMPT TO RECOUPLE THE HOSE. High pressure hose is not recoupleable.

GROUNDING

Ground the sprayer & other components in the system to reduce the risk of static sparking, fire or explosion which can result in serious bodily injury and property damage. For detailed instructions on how to ground, check your local electrical code.
ALWAYS ensure switch is in OFF position before plugging unit in.

Always ground all of these components.
1. Sprayer: plug the power supply cord, or extension cord, each equipped with an undamaged three-prong plug, into a properly grounded outlet. DO NOT USE AN ADAPTER.
Use only a 3 wire extension cord that has a 3 blade grounding plug, and a 3 slot receptacle that will accept the plug on the product. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. (Note: The table on the top of the next page shows the correct size to use depending on cord length and name plate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
2. Air Hoses; use only grounded hoses.
3. Fluid hose: use only grounded hoses.
4. Spray gun or dispensing valve; grounding is obtained through connection to a properly grounded fluid hose and pump.
5. Object being sprayed; according to your local code.
6. All solvent pails used when flushing.
Once each week, check electrical resistance of hose (when using multiple hose assemblies, check overall resistance.) Overall (end to end) resistance of unpressurized hose must not exceed 29 megohms (max.) for any coupled length or combination of hose lengths. If hose exceeds these limits, replace it immediately.
Never exceed 500 ft. (150 m) overall combined hose length to assure electrical continuity.

SAFETY WARNINGS

Always follow recommended pressure and operating instructions.

KEEP CLEAR OF MOVING PARTS

Keep clear of moving parts when starting or operating the sprayer. Do not put your fingers into any openings to avoid amputation by moving parts or burns on hot parts. Precaution is the best insurance against an accident. When starting the motor, maintain a safe distance from moving parts of the equipment. Before adjusting or servicing any mechanical part of the sprayer, follow the PRESSURE RELIEF PROCEDURE on page 6.

AVOID COMPONENT RUPTURE

This sprayer operates at 3000 psi (205 bar). Always be sure that all components and accessories have a maximum working pressure of at least 3000 psi to avoid rupture which can result in serious bodily injury including injection and property damage.

NEVER leave a pressurized sprayer unattended to avoid accidental operation of it, which could result in serious bodily injury.

ALWAYS follow the PRESSURE RELIEF PROCEDURE whenever you stop spraying and before adjusting, removing or repairing any part of the sprayer.

NEVER alter or modify any part of the equipment to avoid possible component rupture which could result in serious bodily injury and property damage.

NEVER use weak or damaged or non-conductive paint hose. Do not allow kinking or crushing of hoses or allow it to vibrate against rough or sharp or hot surfaces. Before each use, check hoses for damage and wear and ensure all fluid connections are secure.

REPLACE any damaged hose. NEVER use tape or any device to mend the hose.

NEVER attempt to stop any leakage in the line or fittings with your hand or any part of the body. Turn off the unit and release pressure by following PRESSURE RELIEF PROCEDURE.

ALWAYS use approved high pressure fittings and replacement parts.

ALWAYS ensure fire extinquishing equipment is readily available and properly maintained.

PREVENT STATIC SPARKING FIRE/EXPLOSIONS

ALWAYS be sure all equipment & objects being sprayed are properly grounded. Always ground sprayer, paint bucket and object being sprayed. See grounding on page 6 for grounding information.

Vapors created when spraying can be ignited by sparks. To reduce the risk of fire, always locate the sprayer at least 20 feet (6 m.) away from spray area. Do not plug in or unplug any electrical cords in the spray area, which can create sparks, when there is any chance of igniting vapors still in the air. Follow the coating & solvent manufacturers safety warnings and precautions.

Use only conductive fluid hoses for airless applications. Be sure gun is grounded through hose connections. check ground continuity in hose & equipment. Overall (end to end) resistance of unpressurized hose must not exceed 29 megohms for any coupled length or combination of hose length. Use only high pressure airless hoses with static wire approved for 3000 psi.

FLUSHING

Reduce the risk of injection injury, static sparking or splashing by following the specific cleaning process.

ALWAYS follow the PRESSURE RELIEF PROCEDURE on page 6.

ALWAYS remove the spray tip before flushing. Hold a metal part of the gun firmly to the side of a metal pail and use the lowest possible fluid pressure during flushing.

NEVER use cleaning solvents with flash points below 140 degrees F. Some of these are: acetone, benzene, ether, gasoline, naptha. Consult your supplier to be sure.

NEVER SMOKE in the spraying/cleaning area.

WHEN SPRAYING & CLEANING WITH FLAMMABLE PAINTS AND THINNERS

1. When spraying with flammable liquids, the unit must be located a minimum of 25 feet away from the spray ing area in a well ventilated area. Ventilation must be sufficient enough to prevent the accumulation of vapors.
2. To eliminate electrostatic discharge, ground the spray unit, paint bucket & spraying object. See GROUND ING on pg. 6. Use only high pressure airless hoses approved for 3000 psi which is conductive.
3. Remove spray tip before cleaning gun and hose. Make contact of gun with bucket and spray without the tip in a well ventilated area, into the grounded steel bucket.
4. Never use high pressure in the cleaning process. **USE MINIMUM PRESSURE.**
5. Do not smoke in spraying/cleaning area.

DO NOT USE halogenated solvents in this sytem. The prime valve and most airless guns have aluminum parts and may explode. Cleaning agents, coatings, paints or adhesives may contain halogenated hydrocarbon solvents. DON'T TAKE CHANCES! Consult your material suppliers to be sure. Some of the most common of these solvents are: Carbontetrachloride, Chlorobenzene, Dichloroethane, Dichloroethyl Ether, Ethylbromide, Ethylchloride, Tethrachloethane. Alternate valves and guns are available if you need to use these solvents.

Note: United States Government safety standards have been adopted under the Occupational Safety & Health Act. These standards, particularly the General Standards, Part 1910 & Construction Standards, Part 1926 should be consulted.

AIRLESSCO 007 SPRAY GUN

SPRAY GUN

Attach spray gun to whip hose and tighten fittings securely. Set the gun trigger lock.(Also may be called gun safety latch or lock) * Refer to Fig. A.

* The gun trigger lock should always be set when the gun is not being triggered.

Read all warnings and safety precautions supplied with the spray gun and in product manual.

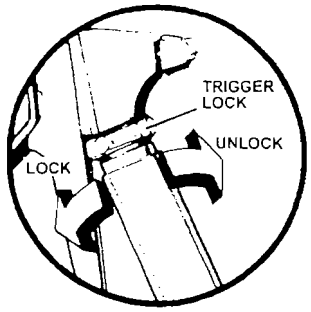
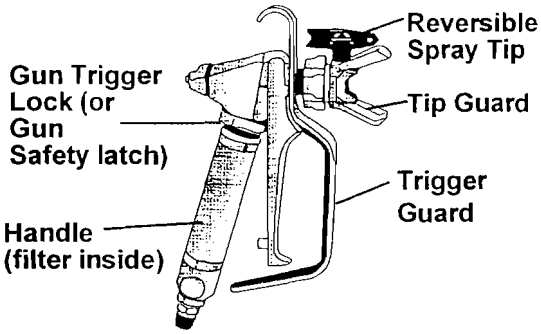
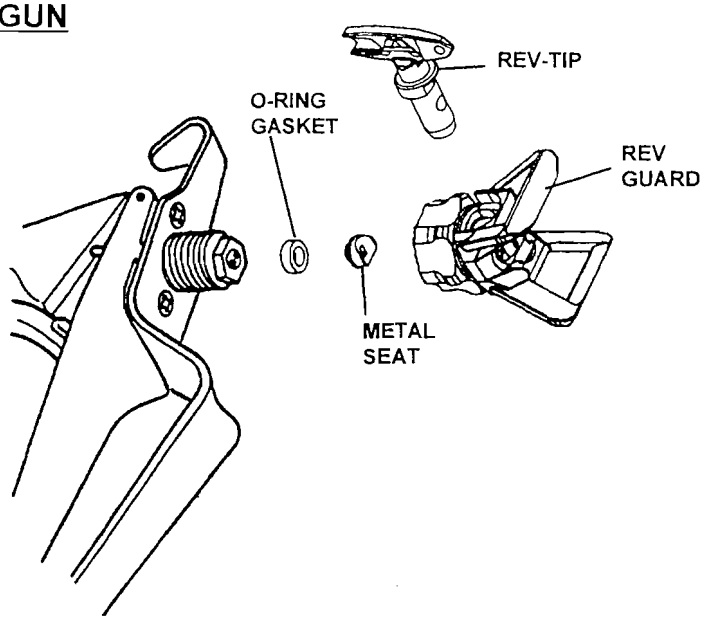


FIG. A

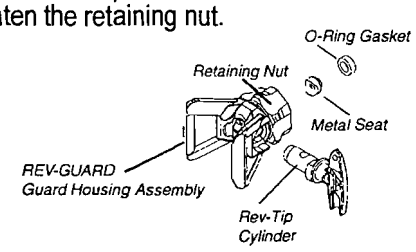
MAJOR COMPONENTS OF SPRAY GUN AND REVERSIBLE SPRAY TIP





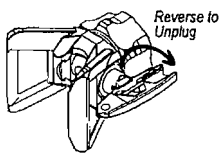
SPRAY TIP ASSEMBLY

1. Be sure the pressure relief procedure is followed before assembling tip and housing to the gun.
2. Insert Rev-Tip cylinder into REV-GUARD (guard housing assembly).
3. Guide the metal seat into REV-GUARD (guard housing assembly) through the retaining nut and turn until it seats against the cylinder.
4. Insert the O ring gasket onto the metal seat so that it fits into the grooves.
5. Finger tighten the REV-GUARD retaining nut onto the gun.
6. Turn guard in the desired position.
7. Completely tighten the retaining nut.



TO REMOVE CLOGS FROM SPRAY TIP

1. Lock gun trigger.
2. Turn Rev-Tip handle 180 degrees.
3. Disengage trigger lock and trigger gun into pail.
4. If the Rev-Tip handles appears locked (resists turning) loosen the retaining nut. Then handle willnow turn easily.
5. Engage trigger lock and return handle to the spray position.

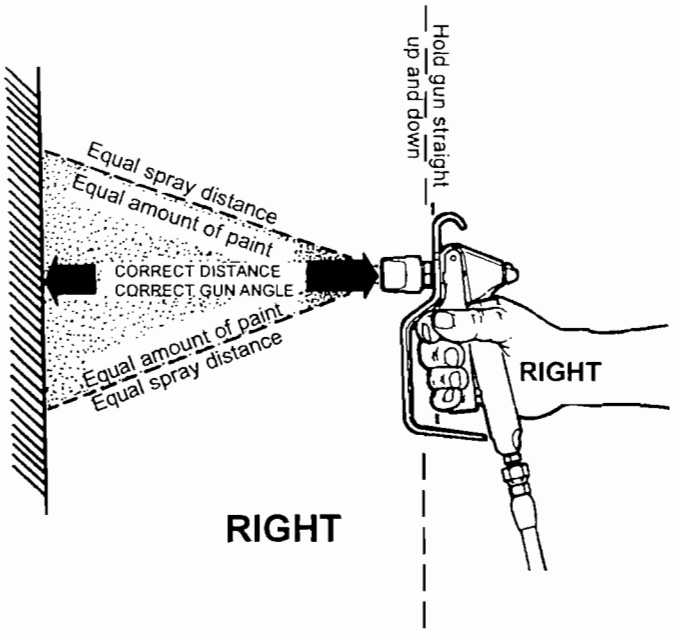


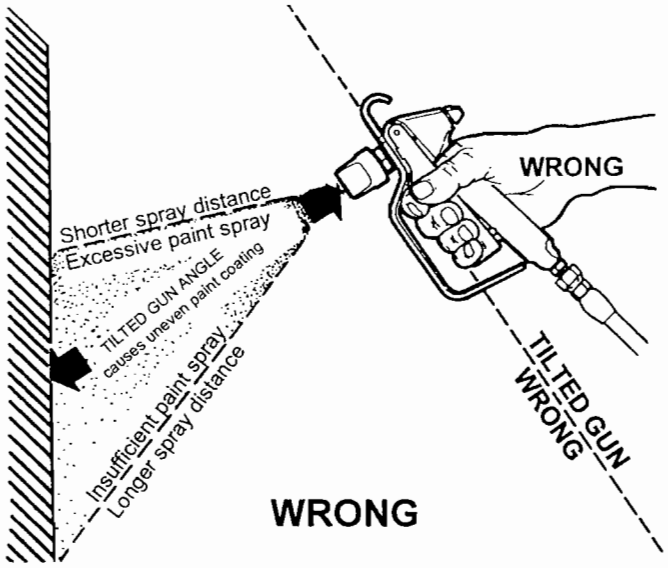
Spray Position Shown

SPRAY TECHNIQUE

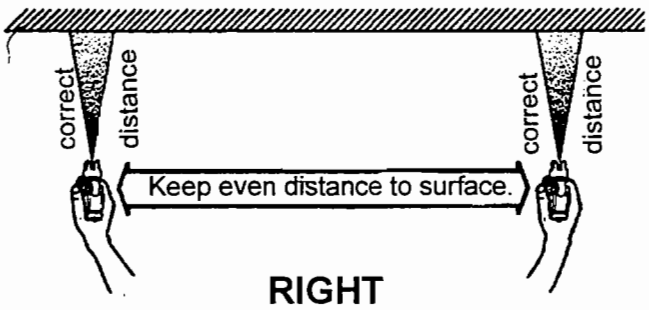
Good Spray Gun Technique is at the core of any spray paint operation. Operator skill and efficiency is as important as good equipment and good paint. Good spray technique is a skill that can be quickly learned by following these simple instructions.

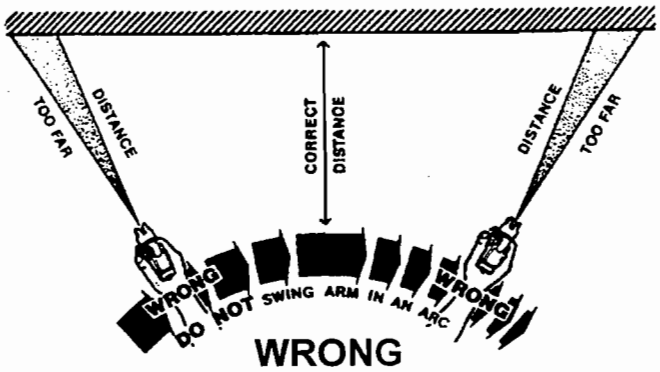
If you are not familiar with spraying techniques, we recommend that you study this section of your manual and practice the proper technique on pieces of cardboard or a suitable surface.





Hold the spray gun 12 - 15 inches away from the work surface and keep it perpendicular (straight) to the surface. Move the spray gun parallel to the work and at a right angle to the surface.



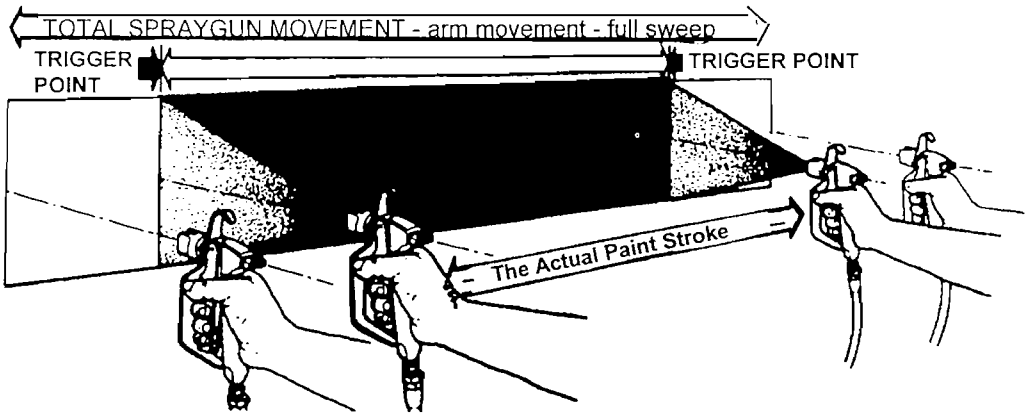


Move the gun at a steady rate in order to apply a good coverage. The wet coat should be just under the thickness at which a run or sag will occur. Slow gun movement or gun held too close will result in an overly wet or thick wet or thick coat coverage that is likely to run or sag.

Do not wave the spray gun. This waving is called arching. Instead, hold the spray gun at a 12 to 15 inch distance perpendicular from the work.

The closer the spray gun is held to the work, the thicker the paint is deposited and the faster the gun must be moved to prevent sags and runs. Holding the gun too far from the work will cause excessive fog, overspray, and a thin and grainy coat.

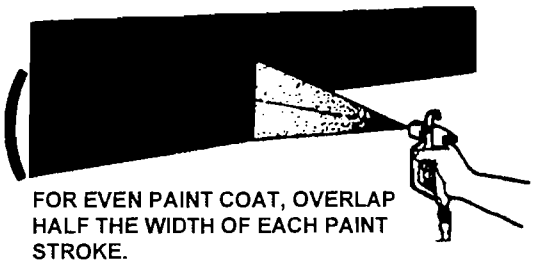
SPRAY TECHNIQUE



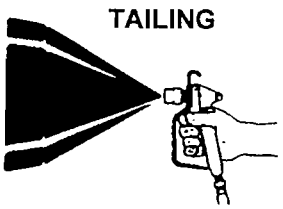
It is important to "trigger" the gun after gun movement (arm movement) has started and release trigger (shut gun off) before gun movement ends. Gun movement is always longer than actual paint (spray) stroke. In that manner, even blending and uniform paint coat thickness is achieved over the entire surface. When the gun is in motion as the trigger is pulled, it deposits an even amount of paint.

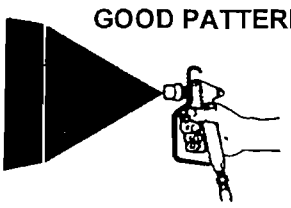
Overlap the previous pass by half the width of the spray pattern. Aim at the bottom of the previous pass.

Spray with uniform strokes from left to right and from right to left, holding stroke speed, distance, lapping, and triggering as uniform as possible.



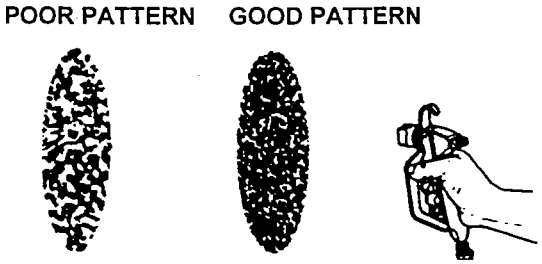
FOR EVEN PAINT COAT, OVERLAP HALF THE WIDTH OF EACH PAINT STROKE.

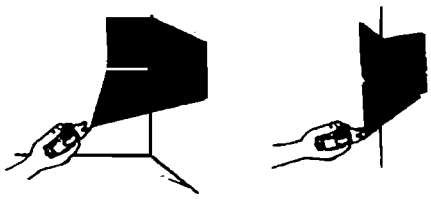




Adjust pressure control knob so that paint is completely atomized from the spray gun. Insufficient pressure will result in "tailing".

Too much pressure will result in excess fog and overspray, excessive tip wear, and increased sprayer wear and tear.





Always use the lowest pressure possible to obtain desirable results.

Test the spray pattern on a piece of cardboard or other surface.

"Inside" and "outside" corners can be sprayed.

Aim the spray gun toward the center of the corner. The spray pattern is divided in half, and the edges of the spray pattern on both walls are the same.

AIRLESS SPRAY GUN OPERATION

Defects	Cause	Correction
Coarse spray	Low pressure	Increase the pressure
Excessive fogging (Overspray)	High pressure	Reduce the pressure to satisfactory pattern distribution
	Material too thin	Use less thinner
Pattern too wide	Spray angle too large	Use smaller spray angle tip
Pattern too narrow	Spray angle too small	Use larger spray angle tip (if coverage is OK, try tip in same nozzle group)
Too much material	Nozzle too large Material too thin Pressure too high	Use next smaller nozzle. Reduce pressure
Too little material	Nozzle too small Material too thick	Use next larger nozzle
Thin distribution in center of pattern "horns"	Worn tip Wrong tip	Change for new tip Use nozzle with a narrow spray angle
Thick skin on work	Material too viscous Application too heavy	Thin cautiously Reduce pressure and/or use tip in next larger nozzle group
Coating fails to close and smooth over	Material too viscous	Thin cautiously
Spray pattern irregular, deflected	Orifice clogged Tip damaged	Clean carefully Replace with new tip
Craters or pock marks, bubbles on work	Solvent balance	Use 1 to 3% "short" solvents remainder "long" solvents (this is most likely to happen with material of low viscosity, lacquers, etc.)
Clogged screens	Extraneous material in paint	Clean screen
	Coarse pigments	Use coarse screen if orifice size allows
	Poorly milled pigments (paint pigments glocculate cover screen. Incompatible paint mixture and thinners	Use coarser screen, larger orifice tips. Obtain ball milled paint. If thinner has been added, test to see if a drop placed on top of paint mixes or flattens out on the surface. If not, try different thinner in fresh batch of paint.

TEST THE PATTERN

Good, Full Pattern

Spotty Pattern — Increase Pressure

SPRAY TIP SELECTION

Spray tip selection is based on paint viscosity, paint type, and job needs. For light viscosities (thin paints), use a smaller tip; for heavier viscosities (thicker paints), use a larger tip size.

Spray tip size is based on how many gallons of paint per minute can be sprayed through the tip. Do not use a tip larger than the maximum pump flow rate or capacity the sprayer can accommodate. Pump flow rate is measured in gallons per minute (GPM).

TIP SELECTION CHART

FULL RANGE OF TIP SIZES

REV -TIPS (P.N. 560-XXX)
FLAT TIPS (P.N. 570-XXX)

For sizes not shown, call factory for availability.

Tip Identification: All tips have a 6 digit part number. The first 3 digits identifies it as a Rev-Tip (560) or a Flat Tip (570). The 4th digit is the fan width - the number is half the fan width, ie. 5 means a 10" fan when it is held 12" from the surface. The 5th and 6th digit is for the orifice size and is measured in thousands of an inch. ie: 1" = 0.01" inch- the higher the number, the larger the tip.

Fan Width in.	Fan Width (mm)	Orifice Size (Inch) .011	.013	.015	.017	.019	.021	.023	.025	.027	.031	.035
4-6	(102-152)	211	213	215	217	219						
6-8	(152-203)	311	313	315	317	319	321	323	325	327		
8-10	(203-254)	411	413	415	417	419	421	423	425	427	431	
10-12	(254-305)	511	513	515	517	519	521	523	525	527	531	535
12-14	(305-356)		613	615	617	619	621	623	625	627	631	635
14-16	(356-406)			715	717		721					
16-18	(406-457)			815		819	821				831	
Water Flow Rate (gpm)		.12	.18	.24	.31	.38	.47	.57	.67	.77	1.03	1.31
Tip Flow Rate-water **(lpm)** (Water @ 2000 psi, 138 bar)		.49	.69	.91	1.17	1.47	1.79	2.15	2.54	2.96	3.90	4.98
Paint Flow Rate (gpm)		.10	.15	.21	.27	.33	.40	.49	.58	.66	.88	1.12
Tip Flow Rate-water **(lpm)** (latex paint @ 2000 psi, 138 bar/1.36 spec.)		.38	.57	.79	1.02	1.25	1.51	1.85	2.20	2.50	3.33	4.24
Pump Minimum -pa **(gpm)**		.25	.25	.33	.40	.50	.60	.75	.88	1.0	1.25	1.5
Output* Rate -water **(lpm)** *Pump will support tip worn to next larger size		1.0	1.0	1.25	1.5	1.9	2.3	2.8	3.3	3.8	4.7	5.7
Gun Filter C= Coarse - 60 mesh F= Fine - 100 mesh		F	F	F,C	C	C	C	C	REMOVE FILTER			
Wood Interior	Lacquer, Varnish	•										
	Stain, Sealer	•	•									
	Enamel			•								
Wood Exterior	Exterior Stain			•	•							
	Vinyl, Acrylic,Latex					•	•					
Masonry	Vinyl, Oil Base Alkyd			•	•							
	Latex, Acrylic			•	•	•	•					
	Block Filler						•	•	•	•	•	
	Elastomer						•	•	•	•	•	•
Ceiling	Hi Build, Mil White						•	•				
Structural Steel	Heavy Coatings						•	•	•	•	•	•

Consult your paint manufacturer for application recommendation.

PATTERN WIDTH

Thickness of the paint coat per stroke is determined by spray tip "fan width", rate of the spray gun movement, and distance to surface.

SPRAY TIP SELECTION

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

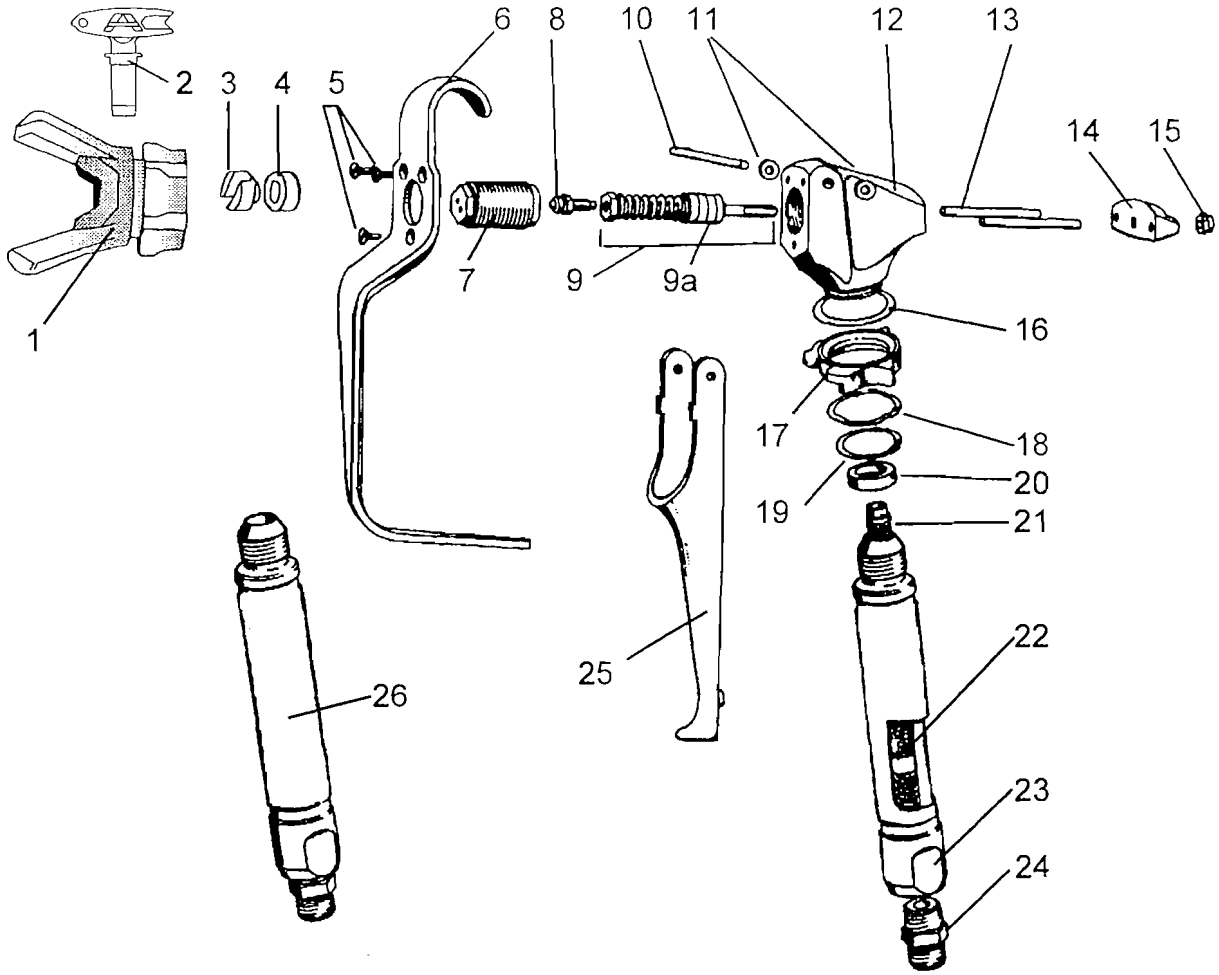
A spray tip with a narrow pattern width makes it easy to spray in tight places.

SPRAY TIP REPLACEMENT

During use, especially with latex paint, high pressure will cause the orifice to grow larger. This destroys the pattern.

Replace tips before they become excessively worn. Worn tips waste paint, cause overspray, make cutting-in difficult, and decreases sprayer performance.

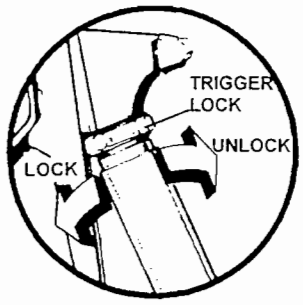
AIRLESSCO 007X & XL SPRAY GUN



ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	561-001	Rev-Guard	15	120-021	Nut
2	560-xxx	Rev-Tip	16	120-056	Washer
3	561-025	Rev-Tip Seal-metal	17	120-048	Safety Latch or Trigger Lock
4	561-026	Rev-Tip Seal-O-ring	18	120-055	Wave Washer
5	120-023	Screw (3)	19	120-049	Retaining Ring
6	120-005	Guard	20	120-082	Seal
7	120-035	Valve Seat Complete	21	120-090CX	Filter-Complete-Coarse
8	120-037	Valve Ball with Holder	21	120-090FX	Filter-Complete-Fine
9	120-011	Valve Spring Unit	22	120-088	Spring
9a	120-033	Seals Teflon (2)	23	120-087	Handle Complete 007X
10	120-022	Trigger Pin	24	115-019	Connector
11	120-046	Washer (2)	25	120-044	Trigger
12	120-002	Gun Head	26	120-085	Handle with Swivel 007XL
13	120-045	Retainer Pin (2)			
14	120-020	Retainer			

AIRLESSCO 007X & 007XL SPRAY GUN

Attach spray gun to hose and tighten fittings securely. Set the gun trigger lock (Also may be called gun safety latch) The gun trigger lock should always be set when the gun is not being triggered.



ADJUSTING SPRAY GUN

Hold gun with trigger locked (25) and push trigger against the lock (17). Then adjust nut (15) so that the retainer (14) will move freely back and forth approximately 1/32" to allow valve spring unit (9) to seat the valve ball (8).

IMPORTANT: Readjust nut (15) periodically for wear of valve seat (7) and valve ball (8); otherwise, leakage will occur.

TO REPLACE THE VALVE BALL HOLDER (8)

KIT #2-007

3 Tip Washers *1 Valve Seat (7)*
1 Valve Ball Holder (8) *2 Seals-Teflon (9a)*

Dismantling:

1. Unscrew Rev-Guard and remove spray tip and seal.
2. Unscrew valve seat (7) with 1/2" socket wrench.

Caution
When removing and replacing valve seat (7), hold the trigger (25) in the open position so that the valve ball (8) is lifted off the valve seat. Failure to lift the ball off the seat will result in a scratched leaky valve.

3. Unscrew valve ball (8) together with the brass part of the assembly (9). Do not pull on the parts or the packing may get damaged.
4. Unscrew the valve ball (8) from the brass part of the assembly (9).

Reassembling is done in reverse sequence. Screw the new valve ball with holder (8) into the brass part (9).

Caution
Tighten valve ball and brass part on threaded end of the shaft by hand until you feel a positive stop. Do not tighten with a wrench since this could result in breaking the shaft.

Note it is recommended that you change the valve seat (7) and valve ball (8) at the same time.

REPLACING THE VALVE SPRING UNIT (9)

KIT#3-007

3 Tip Washers *1 Valve Seat (7)*
1 Valve Ball Holder (8) *1 Valve Spring Unit (9)*

1. Repeat dismantling procedure as outlined above under Steps 1 through 3.
2. Unscrew nut (15), remove retainer (14) with retainer pins (13) and push shaft of the valve spring unit (9) out of the gun head (12).
3. Clean gun head (12) bore with solvent and small brush. Do not use any sharp objects to scrape away dried paint, as they would cause leakage around the seal.

Reassembling is done in reverse sequence. ***IMPORTANT: When reassembling, install valve spring unit (9) with spring loose.***

Push firmly into gun head by hand. Install retainer pins (13), retainer (14) and nut (15) loosely onto valve spring unit (9). By hand turn front of valve spring unit clockwise, tightening the valve spring unit until you feel a positive stop. At that point, continue tightening the valve spring another 1/8 turn expanding the Teflon seals against body of gun.

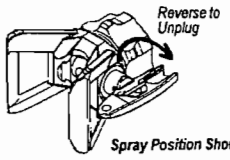
Caution
Do not tighten beyond 1/8 turn as this can result in breaking the valve spring unit shaft. Continue reassembly and adjustment as described above.

CLEANING 007 SPRAY GUN

Immediately after the work is finished, flush the gun out with a solvent. Brush pins (13) with solvent and oil them lightly so they will not collect dried paint.

TO REMOVE CLOGS- REVERSIBLE TIP

1. Lock gun trigger.
2. Turn Rev-Tip handle 180 degrees.
3. Disengage trigger lock and trigger gun into pail.
4. If the Rev-Tip handles appears locked (resists turning) loosen the retaining nut. The handle will now turn easily.
5. Engage trigger lock and return Rev-Tip handle to the spray position.



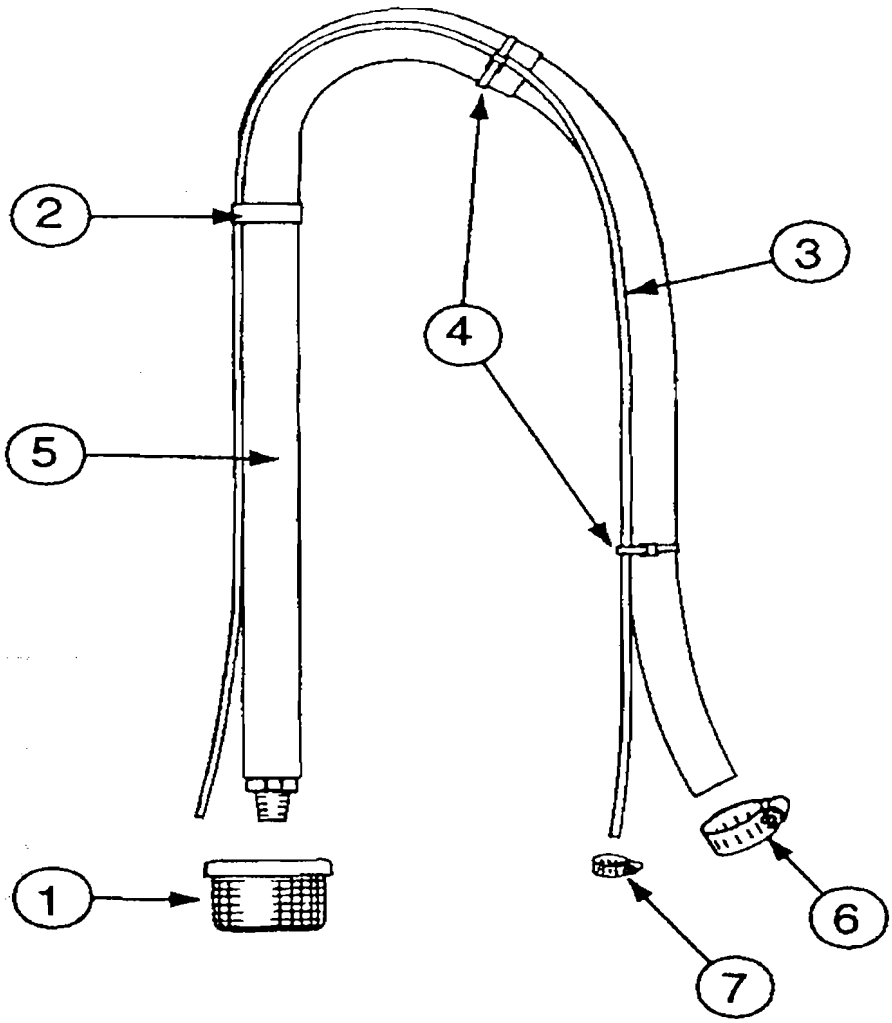
CLOGGED FLAT TIP -Should the spray tip become clogged, relieve pressure from hoses by following the "Pressure Relief Procedure" in Machine Manual, secure the gun with safety lock (17), take off Guard , take out the tip, soak in appropriate solvent & clean with a brush. (Do not use a needle or sharp pointed instrument to clean the tip. The tungsten carbide is brittle and can chip.)

CLEANING FILTER

To clean the filter, use a brush dipped in as appropriate solvent. Change or clean filters at least once a day. Some types of latex may require a filter change after four hours of operation.

FILTER ASSEMBLY

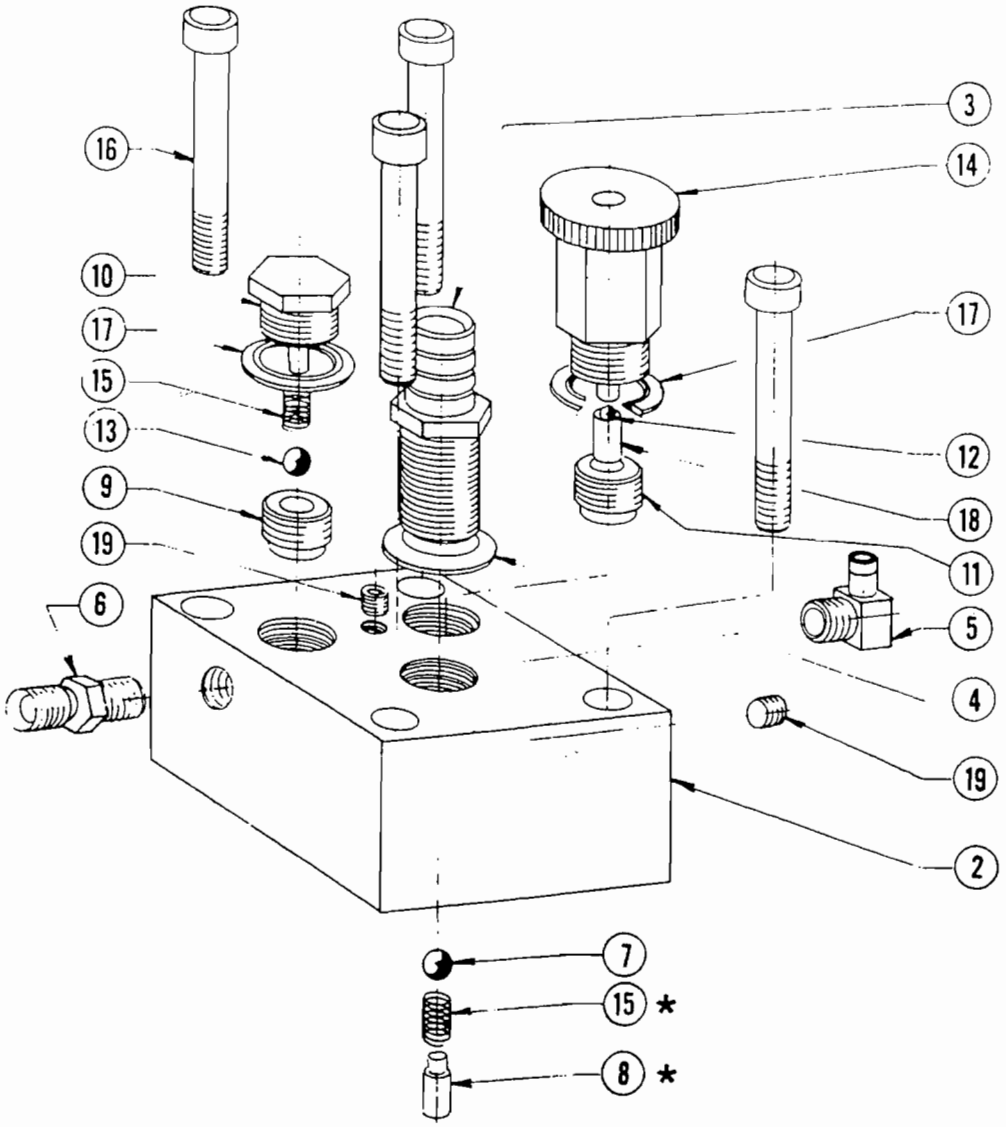
PART NO. 331-227



SUCTION ASSEMBLY - PART NO. 331-227		
ITEM NO.	PART NO.	DESCRIPTION
1	331-217	Filter 16 Mesh
2	331-135	Spring Clamp
3	331-137	Prime Hose (38")
4	111-016	Nylon Strap (2)
5	331-226	Suction Hose Ass'y
6	111-015M	Hose Clamp
7	141-015	Hose Clamp

PUMP HEAD ASSEMBLY

PART NO. 115-301



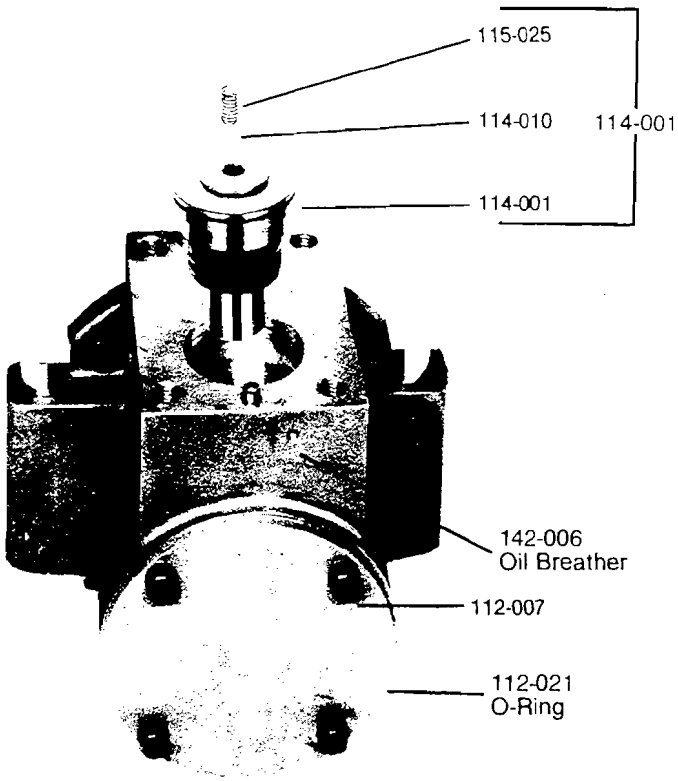
ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
	115-301	Pump Head Ass'y	10	115-007	Discharge Valve Ball Stop
2	115-302	Pump Head	11	115-016	Control Valve Seat
3	115-105	Suction Seat Ass'y	12	115-017	Control Ball 7/32" dia.
4	145-006	Seal Washer	13	115-050	Discharge Ball 11/32" dia.
5	115-107	Elbow	14	115-058	Pressure Relief Valve
6	115-019	Fitting	15	115-025	Spring*
7	115-022	Suction Valve Ball 5/16 dia.	16	115-027	Screw
8	114-010	Suction Valve Ball Stop*	17	115-028	Ring Seal
9	115-004	Discharge Valve Seat	18	115-031	T.C. Guide
			19	115-034	Plug

*** Included with diaphragm (114-001)**

PAINT PUMP PARTS LIST

TOOLS & TESTING EQUIPMENT

Open End Wrench 1 1/8"
Allen Wrench 7/16", Part No. 100-074
Allen Wrench 3/8", Part No. 100-073
Allen Wrench 3/16", 5/16" & 1/4"
Socket 3/8", Part No. 100-071
Socket 7/16", Part No. 100-072
Socket 1 1/8" deep
Pressure Gauge Part No. 111-045
(glycerine filled with snubbers, min 3000 psi.)
Torque Wrench - min. 125 lbs.
Spray Pack (gun, tip & hose) Part No. 002-001
Screwdriver



OIL REQUIREMENTS

Change oil (6 oz) of Part No. 112-000 in the bearing housing every 6 months if sprayer operates daily. Note: If Airlessco oil is unavailable, use SAE 30 Non Detergent. To change oil, remove front plate (112-007) and drain the oil. Refill and replace front plate. Note: Machine may spill oil due to overfill and/or temperature increases. This will not affect performance or operation.

SERVICE CENTER STOCK (FOR SERVICING 10 COMPLETE UNITS)

PART NO.	DESCRIPTION	STOCK
115-301	3200 Control Head (complete)**	2
117-056	3200 Electronic Sensor	1
115-101	3100 Control Head**	2
115-004	Discharge Valve Seat	3
115-007	Discharge Valve Ball Stop	3
115-016	Control Valve Seat	5
115-017	Control Valve Ball 3/16 Dia.	5
115-022	Suction Valve Ball 5/16 Dia.	1
115-025	Discharge Valve Spring	3
115-028	Ring Seal	5
115-050	Discharge Valve Ball 11/32 Dia.	3

PART NO.	DESCRIPTION	STOCK
115-105	Suction Seat	1
111-012	Hose - 1/2" I.D.	1
111-013	Hose - 1/4" I.D.	1
141-008	Filter	3
114-001	Piston diaphragm Ass'y**	3
145-006	Seal - Copper	4
112-000	Oil	3

**** On Exchange Program**

REPAIR KITS ALSO AVAILABLE:

KIT-1-3100 Basic, Discharge Valve Repair Kit includes:
Discharge Spring (1), Discharge Ball (1), Discharge Seat (1)
KIT-2-3100 Complete, Discharge Valve Repair Kit includes:
3 items above, Discharge Seal Ring (1), Discharge Ball Stop (1)
KIT-3-3100 Basic, Control Valve Repair Kit includes:
Control Ball (1), Control Seat (1)

TROUBLESHOOTING

SYMPTOM	CAUSE	REMEDY
Motor not running.	1. Pressure adjustment too high.	1. Reduce pressure by turning the pressure control knob counterclockwise.
	2. Motor too hot (Thermal overload light on)	2. a. Use heavier gauge extension cord (12 gauge) to reduce current loss. b. Pressure adjustment too high. Reduce pressure by turning pressure control knob counterclockwise. To restart motor, turn off and wait 30 minutes until motor cools down. Thermal overload will automatically switch back on.
	3. Motor stalled under pressure.	3. Operate gun or open Pressure-Relief Valve.
Motor runs continuously with gun closed.	1. Pressure-Relief Valve open.	1. Close Pressure-Relief Valve.
	2. Electric Sensor Malfunction.	2. Use Pressure-Relief Valve to reduce pressure and switch off. Take unit to an Authorized Airlessco Repair Center for repair.
Unit does not draw up paint.	1. Air in the system.	1. Turn Pressure-Relief Valve Knob counterclockwise to "Prime" and wait until system is free of air.
	2. Paint too heavy.	2. Thin paint.
	3. Filter dirty or plugged.	3. Clean or replace FILTER.
	4. Paint dried out and ball stuck in valve seat.	4. a. Unscrew DISCHARGE VALVE BALL STOP (115-007) and clean BALL (115-050) and SEAT (115-004) b. Unscrew PRESSURE-RELIEF VALVE (115-058) and clean BALL (115-017) and SEAT (115-016). Grease RING SEAL (115-028) with multi-purpose grease before tightening DISCHARGE VALVE BALL STOP (115-007) and/or PRESSURE-RELIEF VALVE (115-058). c. Unscrew SUCTION HOSE CLAMP and remove SUCTION HOSE. Using small screwdriver press slightly on the ball to separate it from the seat.
Unit draws up paint, but pressure does not build up when spraying. (Important: Check Pressure Gauge)	1. Pressure-Relief Valve open.	1. Turn Pressure-Relief Valve Knob (115-058) fully clockwise.
	2. Air in System.	2. Turn Pressure-Relief Valve Knob counterclockwise to "Prime" and wait until system is free of air.
	3. Dirt in Pressure-Relief Valve Seat.	3. Clean Valve.
	4. Paint leaks from return hose.	4. a. Turn Pressure-Relief Valve Knob (115-058) fully clockwise. b. Clean or replace. Use Kit #3-3100.
Unit draws up paint, pressure builds up, but drops immediately when gun is opened. (Important: check with pressure gauge)	1. Too large tip size.	1. Exchange TIPS for smaller size. Tips wear out after some time, enlarging orifice.
	2. Inlet filter plugged	2. Clean, or replace FILTER.
	3. Paint too heavy.	3. Thin or filter paint.
	4. Suction hose clamps not tight, pump sucking air.	4. Tighten clamps.
	5. Suction hose defective.	5. Replace suction hose.
	6. Paint leaks through oil breather hole in casting.	6. Replace diaphragm assembly.
	7. If none of above improved spraying.	7. Take your unit to an authorized Airlessco repair center.

ALWAYS FOLLOW **PRESSURE RELIEF PROCEDURE ON PG. 6** BEFORE SERVICING GUN OR MACHINE.

SERVICE CENTER REPAIRS

Service procedures must be performed by authorized service center only.

AIRLESSCO PARTS EXCHANGE PROGRAM OF Control Head (115-301), Diaphragm Assy (114-001) and Pressure Relief Valve (115-058). We offer the Parts Exchange Program for distributors to minimize the down-time on the units by having available a rebuilt Control Head Assy (115-301) and Diaphragm Assy (114-001) to exchange with the used parts.

TO REPLACE CONTROL HEAD (115-301)

1. Disconnect pick up and return hoses.
2. Remove bolts (115-027) and control head.
3. Remove old suction ball (115-022) from diaphragm.
4. Check spring (115-025) to make sure the top is 5/16 above the screw which holds the diaphragm parts in place.
5. Set new suction ball (115-022) on spring.
6. Place 2 head bolts in opposite corners of new block. Use these to center head as it is installed.
7. Tighten all 4 head bolts to 45 foot pounds.
8. Re-install pick up and return hoses.

DIAPHRAGM (114-001) SHOULD BE CHANGED WHEN:

1. Anytime the paint head is removed for any reason, a new diaphragm assy should be installed.
2. Paint leaks from the weep hole in front. Note: During normal operation oil may drip out of the weep hole. This is a common occurrence and does not interfere with machine operation.
3. If paint is leaking around the head.

TO EXCHANGE A DIAPHRAGM:

1. Remove the 4 head bolts (115-027) which holds the block in place.
2. Remove the head. (115-301)
3. Put your thumb on the diaphragm and turn the fan with a screwdriver until you feel the diaphragm is at the top of the stroke.
4. Pry old diaphragm (114-001) assy out by inserting a screwdriver under diaphragm washers. Do not pry against the casting.
5. Check to make sure the shoulder inside the diaphragm is clean.
6. Insert rebuilt diaphragm with hole in guide (114-004) to the rear (away from the weep hole in the casting).
7. Press diaphragm down. Hold thumb on diaphragm, turn fan until diaphragm is at its lowest point. Check diaphragm spring. It should be 5/6" of an inch above the top of the screw.
8. Place suction ball (115-022) on diaphragm spring.
9. Clean and dry out the bottom of control head (115-301). Insert two bolts on opposite corners of the head and use these to center the head as it is reinstalled on the machine.
10. After all bolts are installed, torque them to 45 foot pounds.

TO REPLACE THE DISCHARGE SEAT (115-004) - Use # KIT-1-3100

Note: If discharge valve ball stop shows wear (if ball stop is cupped instead of flat) order KIT-2-3100.

1. Unscrew the discharge valve ball stop (115-007).
2. Remove ball (115-050)
3. Using 7/16 Allen Wrench remove the seat.
4. Clean the bottom of the hole in the pump head and grease with a multipurpose grease.
5. Install new seat and torque to 85 ft. lb. (hold under the torque for several seconds.
6. Put new 11/32 ball (115-050) into the seat.
7. Clean & grease the ring seal (115-028). Clean top of the pump control head & shoulder of the ball stop before tightening.
8. Reinstall discharge valve ball stop (115-007). Tighten firmly to about 15 ft. lb.

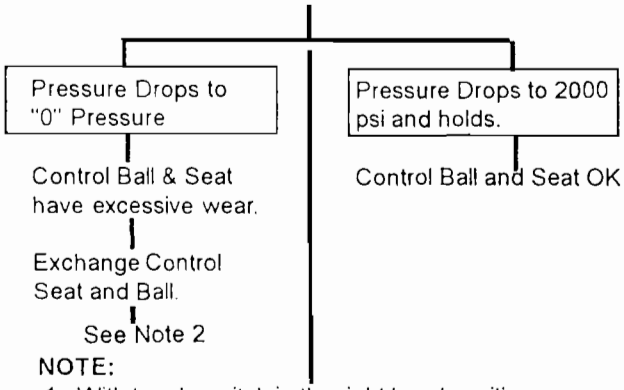
TO REPLACE CONTROL VALVE SEAT (115-016) AND BALL (115-017) - Use # KIT-3-3100

1. Unscrew the pressure relief valve(115-058)
2. Remove ball (115-017) and guide (115-031).
3. Using a 7/16 Allen wrench remove the seat.
4. Clean the bottom of the hole in the pump head and grease with a multipurpose grease.
5. Install new seat and torque to 85 ft. lb.
6. Put in new ball 7/32 (115-017) and original guide (115-031) (Be sure the notch on the guide is on the top.)
7. Clean and grease the ring seal. Clean top of the pump control head and shoulder of the pressure relief valve before tightening.
8. Reinstall pressure relief valve and tighten to 15 ft. lb.

STEP 1: CHECK CONTROL VALVE #115-058

Use 50' flexible hose, pressure guage & .017 tip on gun.

* Remove pin next to toggle switch.
* Switch to right position (Note 1).
* Prime Pump
* Turn prime/pressure valve completely CW, should increase to 3500 psi.
* Turn motor off.



NOTE:

1. With toggle switch in the right hand position, the sensor assembly is bypassed and the machine will run continuously. Pressure adjustments in this position are made by adjusting the allen screw in the top of the Prime/Pressure Relief Valve. (Accessible by removing the RED plastic plug from top of valve). When operating in this posiiton, the maximum pressure should be 3500 psi. At 3500 psi, the machine will bypass through the prime/return hose. Pressure adjustments to valve should not be made unless the discharge and control balls and seats are NEW!!
Before turning toggle switch back to left hand position, turn unit off. Relieve pressure by turning prime/pressure valve completely CCW. When the toggle switch is turned to the left position, the sensor control assembly functions. In this position the pressure should build to 2500 psi and shut the motor off when the pressure control knob is fully clockwise.

2. Inspect control valve #115-058 for wear. The edge of cylinder on bottom of valve should be smooth and even. Replace if worn.

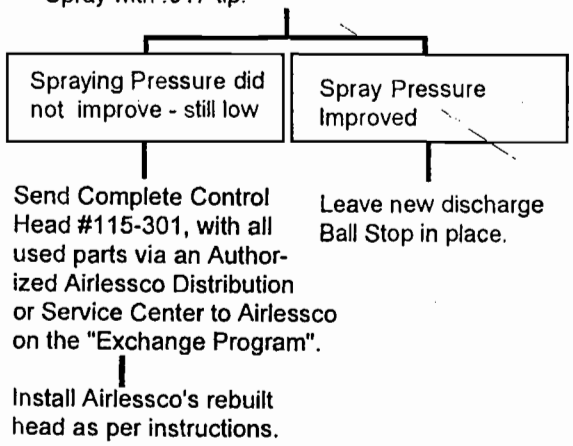
STEP 2: CHECK DISCHARGE VALVE & SEAT
(Follow this step after Step #1)

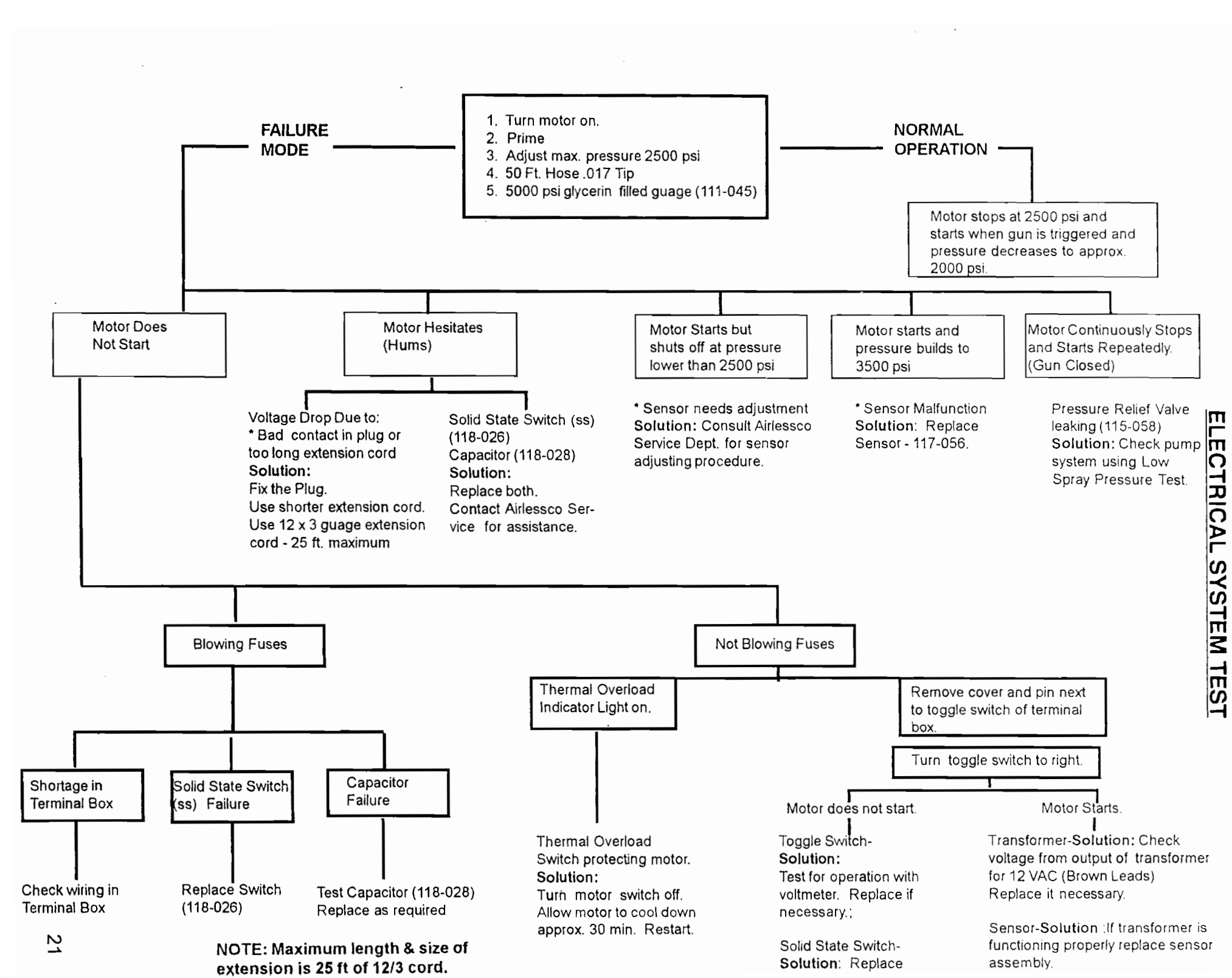
* Check visually the discharge seat and ball.
* Remove the discharge valve ball #115-007. Check for rings on ball due to corrosion and or excessive wear of ball and seat. Exchange part if required.

STEP 3: CHECK DISCHARGE BALL STOP
(go to Step 3 only when spray pressure is still low after completing Step 1 and 2)

With toggle switch to manual position:

* Prime Pump, Turn prime/pressure relief valve completely CW to max. pressure.
* Spray with .017 Tip.
* Record spraying pressure. Should be 1550 or higher.
* Turn prime spray knob to prime.
* Turn motor switch off.
* Replace discharge ball stop #115-007.
* Prime pump, turn prime/pressure valve CW.
* Spray with .017 tip.





NOTE: Maximum length & size of extension is 25 ft of 12/3 cord.

ELECTRICAL SYSTEM

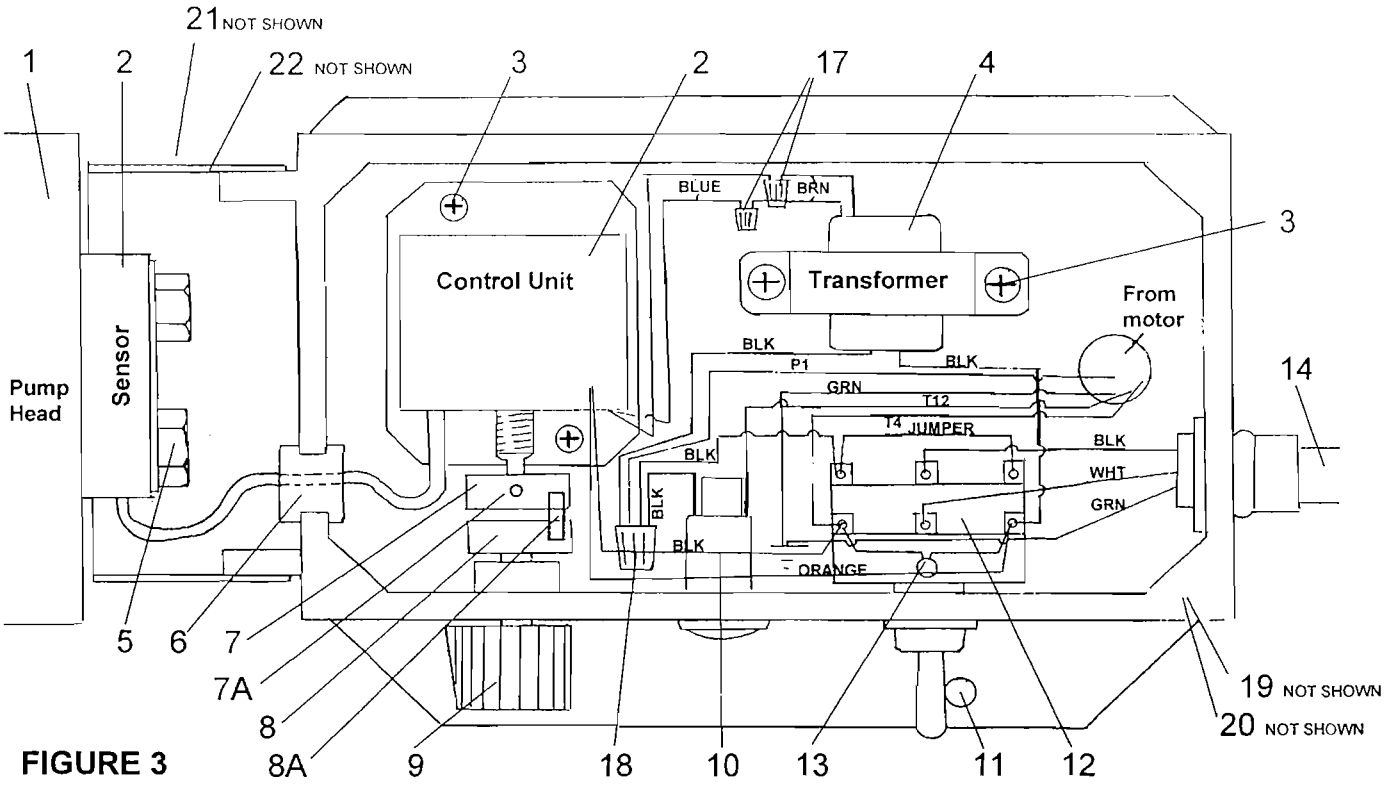


FIGURE 3

SSS AND CAPACITOR SCHEMATIC

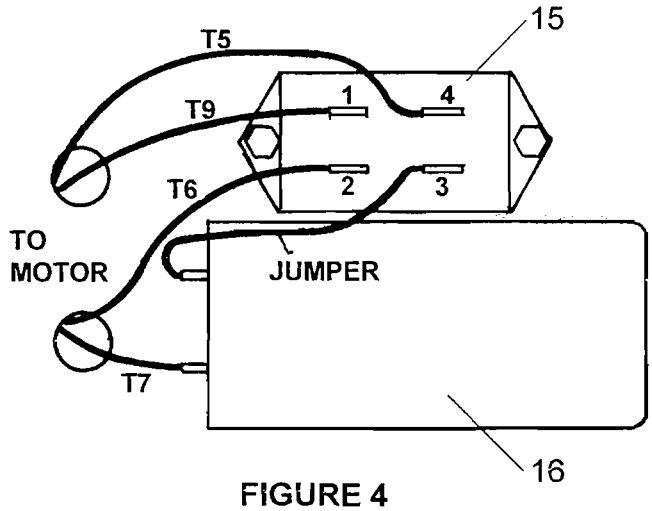


FIGURE 4

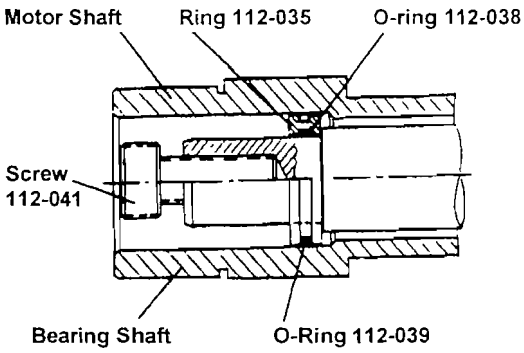
FIGURE 3 & 4 PARTS LIST		
Item No.	Part No.	Description
1	115-301	Pump Head
2	117-056	Sensor Ass'y
3	117-052	Screw (4)
4	117-097	Transformer
5	169-050	Hex Hd. Screws (2)
6	117-047	Grommet
7	117-041	Coupling (plastic)
7a	117-049	Set Screw
8	117-040	Driver
8a	117-048	Pin
9	117-044	Knob
10	117-060	Thermal Overload Lt.
11	117-037	Stop Pin
12	117-059	Toggle Switch
13	117-168	Suppressor
14	117-166	Power Cord
15	118-026	Solid State Switch
16	118-028	Capacitor
17	117-137	Wire Nut (Grey) (2)
18	118-013	Wire Nut (Yellow)
19	117-034	Terminal Box Cover
20	117-046	Cover Screw (4)
21	117-050	Sensor Cover
22	117-052	Sensor Cover Screw (4)

COUPLING INSTALLATION

1. Slide ring (112-035) with 2 O-rings onto the motor's shaft. GREASE it first. (Refer to Fig. 1)

2. Install screw 112-041, all the way into end of the motors' shaft. (Fig. 1)

FIG. 1



3. Push the coupling onto motors' shaft until it stops against the screw 112-041. (Refer to Fig. 2)

4. Hold coupling with 13/16 wrench. Turn screw counterclockwise with Allen wrench 5/16, until three threads are showing. (Fig. 2)

5. Hold coupling (13/16 wrench) and screw with Allen wrench 5/16. Neither should move. Turn motor fan clockwise. Coupling will tighten onto shaft until it stops. Do not force. (Fig. 2)

6. Hold coupling (13/16 wrench) and tighten screw with Allen Wrench 5/16 until very tight. (Fig. 2)

FIG. 2