Instruction Manual

This manual contains important warnings and instructions.
Please read these instructions carefully and keep for your reference.

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1. Safety

Read all instructions and safety precautions before operating the unit.

⚠ DANGER

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

⚠WARNING

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

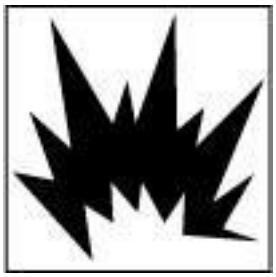
⚠CAUTION

Indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.

NOTICE

Indicates a situation that could result in damage to the equipment or other property.

⚠WARNING



Risk of fire or explosion! Solvent and paint fumes can explode or ignite, causing severe injury and property damage.

Paints and solvents containing HALOGENATED HYDROCARBONS can react explosively with aluminum. Always check the product's label before using these materials in the unit.

Hazardous vapors: Paint, solvents, insecticides and other materials may be harmful if inhaled, causing severe nausea, fainting or poisoning.

Make sure the room is well ventilated. Avoid all ignition sources, such as static electricity, sparks, open flames, hot objects, sparks from connecting and disconnecting power cords, and working light switches.

Follow the material and solvent manufacturers' safety precautions and warnings. Do not use liquids with flash points less than 100° F (38° C).

Static electricity can be produced by HVLP spraying. Make sure any electrically conductive object being sprayed is grounded to prevent static sparking. The sprayer is grounded to prevent static sparking. The sprayer is grounded through the electrical cord.

Use a respirator or mask whenever there is a chance that vapors may be inhaled. Read all instructions with the mask to ensure that the mask will provide the necessary protection against the inhalation of harmful vapors.

Do not carry the Paint Application System while spraying.

Keep the Paint Application System at the maximum distance from the spraying area.

NOTICE

Tipping the spray gun causes the spray gun to clog. Dried spray material also clogs the pressure delivery tube and fittings. The spray gun does not function when clogging occurs.

NOTICE

When not in use, be sure to disconnect the hose and place the spray gun into the Hand-hold Spray gun Docking Station on the Paint Application System to avoid tipping.

⚠ DANGER

Improper installation of the ground plug can result in the risk of electrical shock. If repair or replacement of the plug or cord is necessary, do not connect the ground wire to either flat blade terminal. The wire with green insulation (with or without a yellow stripe) is the grounding wire.

1. For any question regarding proper installation of the ground plug, consult a qualified (licensed or certified) electrician.

2. Do not modify the plug provided. If the plug does not fit the outlet, have the proper outlet installed by a qualified electrician.

3. If an extension cord is required, use only a three wire extension cord that has the same configuration as the unit cord, including the (round) ground terminal. Make sure that the extension cord is plugged into a properly grounded receptacle.

4. When using an extension cord, be sure it is in good condition and heavy enough to meet the specifications in the chart below. If an extension cord is needed the following wire sizes must be used.

25’ cord (7.62m)…….....	10, 12, or 14 Gauge
50’ cord (15.24m)…….....	10 or 12 Gauge
100’ cord (30.48m)……..……....	10 Gauge

Figure 2

Grounding instructions for all countries using a 2 pronged plug configuration.

⚠CAUTION

This product must be properly grounded. In the event of an electrical short circuit, grounding reduces the risk of electrical shock by providing an alternate path for the electrical current.

This product is equipped with a cord that has a ground wire and an appropriate ground plug. Plug the unit into an outlet that is properly installed and grounded in accordance with local codes and ordinances.

Safety Note: Users in countries in continental Europe and Australia and anywhere that offers a two pronged plug must be aware that this configuration does not provide grounding.

2. Paint Application System by HBC System

CONGRATULATIONS!! You have just purchased the Paint Application System, the finest spray system available to spray cars, boats and airplanes. You are about to enjoy the great benefits of the **Paint Application System (PAS)**. Our designs are the result of over 40 years of experience in manufacturing HVLP spray systems and spray guns. We have painstakingly worked and consulted with professional spray finishers in your industry to bring you this versatile, well engineered tool.

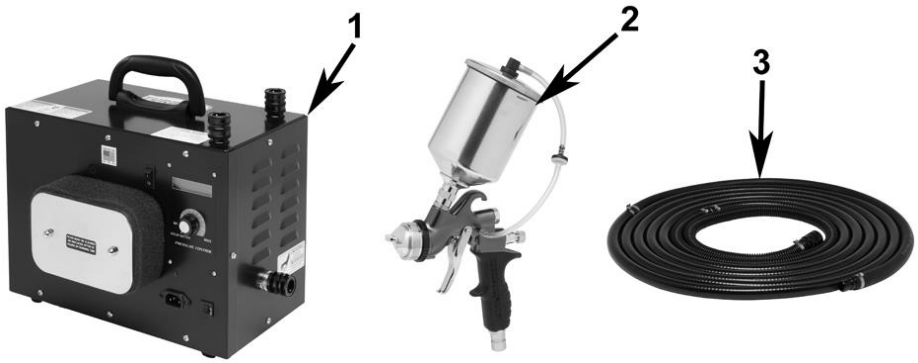
Whether you are new to spray finishing, you have spray finished before, or are just new to PAS spraying; there are some basic spray finishing guidelines that will help you to achieve the best results and optimum success from your new equipment. Reading this information carefully and following these simple steps will ensure that you get the best performance and results from your new HVLP spray system.

Check the contents of your box. The following are included:

(1) Paint Application System Unit
(1 Clear Coat Spray Gun
(1) Base Coat Spray Gun
(1) 37' Flex-Air Hose
(1) Instruction Manual
(1) Wrench
(1) Spray Gun Lube
(1) Blow-off Tool
(1) Cleaning Brush
(1) Electric Cord
(2) Quick Couplers Hand-Hold

3. How Your Paint Application System Works

Your PAS system has three components: the **unit** (1), **spray gun** (2) and **air hose** (3). The unit, when connected to the correct electrical power supply and with the on/off switch in the "on" position, provides a continuous source of clean, warm, dry, High Volume Low Pressure (HVLP) air. The air hose connects the unit to the spray gun. Air flows through the hose to the nozzle of the specially designed HVLP spray gun. Atomization of the coating is achieved when the air mixes with the stream of fluid passing through the tip/nozzle. This low pressure atomization principle achieves minimum misting (overspray) to the spray environment and maximum savings in paint.



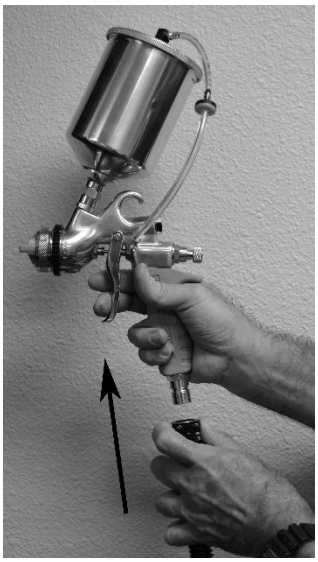
3.1 How Your Spray Gun Works

Your Paint Application System Spray Gun operates similar to a typical compressed air spray gun with some minor differences. The cup on your Spray Gun is pressurized through the air feed tube. This will help deliver fluid to the tip/nozzle and produce a larger fan pattern. It is possible to use the Spray Gun without the air feed tube connected, but only with certain types of paints and using larger needle and nozzle sizes. You will notice a much smaller fan pattern when using the spray guns without the air feed tube connected.

When the material adjustment screw is opened and the trigger pulled back, fluid flows through the tip/nozzle mixing with the air flow delivered from the air cap and projects a fine atomized mist to your work piece. You can adjust the fluid flow by opening or closing the material adjustment screw to your liking. The fan adjustment ring is located in the front of the spray gun. Locate the adjustment marks on the side of the spray gun body. Turn the fan control ring up to achieve a smaller fan or down to achieve a larger fan.

3.2 Preparing To Use Your Paint Application System

Connect the male end of the air hose to the APS system. Pull back the spring loaded quick disconnect coupler and insert the male connector on the air hose into the connector. Release the ring. Your air hose will be locked into place. To release the air hose, pull back on the spring loaded quick coupler ring with your fingers and pull.



Connect female end of air hose to your spray gun using this same procedure.

Plug the power cord into an outlet that is properly installed and grounded in accordance with local codes and ordinances and the proper voltage. Your PAS system is rated for either 120 volts or 240 volts. Please check the Serial number plate located underneath of the system to check which voltage your system is designed for. The system does not work on dual voltage. Plugging the system into the wrong voltage will damage the motor and void your warranty.

NOTICE

Do not cover or enclose the PAS. It is important to draw cool/ambient air through the unit for optimum performance. Avoid placing the Paint Application System in a warm environment or in direct sunlight.

3.3 Setting up Your Spray Gun with an Aluminum Cup

Good quality results with your HVLP spray finishing equipment are a combination of careful preparation of your project, a proper spraying environment, a basic knowledge of the coatings you will be using and how these coatings work with your Paint Application System finishing equipment.

Your Spray Gun comes with a 600cc Gravity Feed cup assembly. Some minor assembly is required:

1. Screw the cup to the material connector on the top of the spray gun body.

2. Remove the screw in the side of the spray gun body using the wrench (spanner) provided.

3. Screw the air feed connector onto the side of the spray gun body.

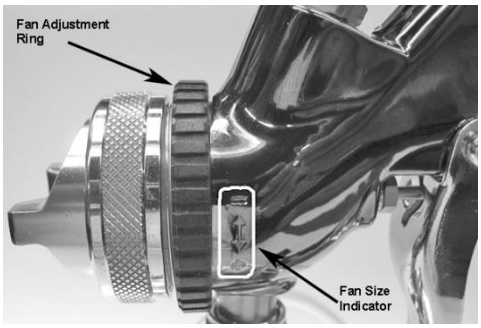
4. Push the air feed tube onto the air feed connector.

5. Push the other end of the air feed tube onto the cup lid connector.

NOTE:
Make sure you attach the air feed tube so that the black end of the air valve is pointing towards the cup lid as shown in the illustration.

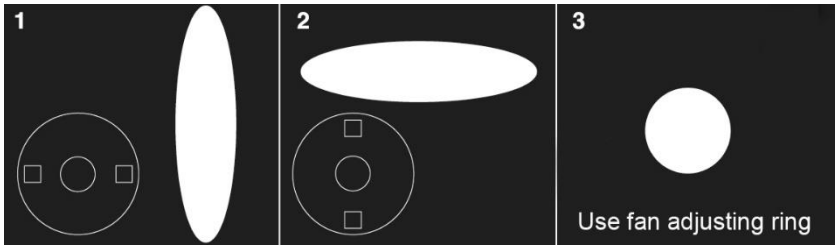
NOTE:
Above the non-return valve you will see an air relief valve. The purpose of this valve it to release pressure from the cup prior to opening the cup lid to prevent paint splatter. To release the pressure all you need to do is turn the air relief valve.

3.4 Operating your Spray Gun



The Coat Spray Gun has a unique and simple fan pattern control. Locate the Fan Adjustment Ring in the front of the spray gun. Turn the spray gun on its side and notice the fan size indicator stamped into the spray head casting, just to the right of the fan adjustment ring. You will notice that there is a "-" sign at the top and a "+" sign at the bottom with two arrows indicating the direction of rotation. Rotating the ring UPWARD will begin to reduce the size of the fan pattern until the pattern is round. Rotating the ring DOWNWARD will provide a full, open, wide pattern. (Relative to the distance the spray gun is held from the work surface).

To adjust the direction of the fan pattern, loosen the air cap ring, (Fig. 1) rotate the air cap ears (Fig. 2) to either a vertical or horizontal position as noted in the diagram. This will provide your vertical or horizontal fan pattern.



Spray Patterns

Fig. 1 Use this position when spraying across from side to side.
Fig. 2 Use this position when spraying from top to bottom.
Fig. 3 Use this position for spotting small objects, corners and sharp angles and touch up.

Install the appropriate fluid nozzle, needle assembly and color coded air cap (A, B, C or D) for the viscosity of the fluid being sprayed. See Chart B for recommendations. Prepare your coating as you would normally, (Thinning if necessary). Filter and pour into spray gun cup.

Chart A Nozzle, Needle and Air Caps for Coat Spray Guns

Tip/Needle Size	Application	Air Cap
0.5MM (.019)	Clear Coats	CC
0.8MM (.031)	Base Coats and Metallics	B-HS
1.0MM (.039)	Base Coat, single stage, Metallics	B-HS
1.3MM (.051)	Single Stage, Primers	B-HS
1.5MM (.059)	Single Stage, Primers	C-HS
1.8MM (.070)	Primers	C-HS
2.0MM (.079)	Primers	C-HS
2.5MM (.098)	Gelcoat or under sealant	D

Chart B Viscosity Cup Comparison

Viscosity chart should be used as a guide to thinning various coatings. Follow reduction guidelines provided by paint manufacturer. Using a slow solvent or hot temperature solvent will enhance results with spray technology and is strongly recommended.

Zahn Cup sec (#2)	Zahn Cup sec (#4)	Ford cup sec (#3)	Ford cup sec (#4)	Poise P	Centi-poise cP	Krebs KU	Saybolt SSU
16			5	0.1	10		60
17			8		15		80
18		12	10	0.2	20		100
19		15	12		25		130
20		19	15	0.3	30		150
22		25	17	0.4	40		210
24		29	19	0.5	50	30	250
27		33	21	0.6	60	33	320
30		36	23	0.7	70	35	370
34		41	26	0.8	80	37	430
37		45	29	0.9	90	38	480
41	10	50	31	1	100	40	530
49	11	58	36	1.2	120	43	580

53	13	66	41	1.4	140	46	690
56	14	67	45	1.6	160	48	790
74	16		51	1.8	180	50	900

Connect the appropriate air hose to the spray gun. Begin turning the material adjustment screw (#19) anti or counter clockwise 1 – 2 full turns. Look at the size of the fluid pattern and flow volume. Adjust before applying material to your substrate. If you have too much fluid flow, turn the material adjustment screw clockwise. If you do not have enough fluid flow, adjust the material adjustment screw anti/counter clockwise. Hold spray gun 4" – 8" (10cm-20cm) from your work surface depending on the size of your substrate. Closer is generally preferred for highest efficiency and the least amount of overspray. Follow the proper spray technique as outlined in the spray technique diagram. You can increase or decrease the fluid flow as desired as well as the distance from your work surface as necessary. Adjust the Fan Adjustment Ring as desired.

3.5 Spray Gun Technique

Like any skill, practice makes perfect. Never try to rush the spray finishing process. Learn the characteristics of the coating you will be spraying. Build up layers of material. Sand between coats and allow proper drying time between applications.

Here are some general guidelines for effective spray finishing:

1. Remember to always keep the distance between the spray gun and the surface the same when moving across your work, (or up and down) called a "pass". Do not rotate or turn your wrist from side to side. See Chart C below.

2. Move the spray gun across your work from end to end.

3. Be sure to maintain the same speed of movement. This ensures an even application of coating.

4. At the end of a "pass" always release the trigger. To continue, spray in the opposite direction and overlap your previous coat by 1/3 to 1/2.

5. When finished you should have an even wet coat on your work. If you have dry spots you have overlapped too wide. If you have heavy or wet spots, you have overlapped too much or moved the spray gun too slowly.

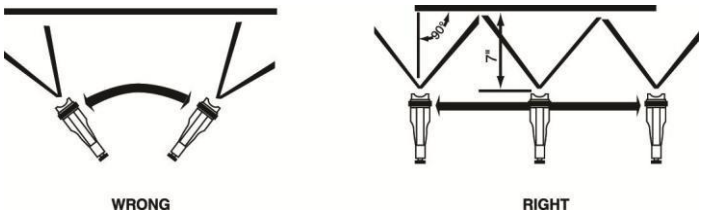
6. When spraying a large piece, start at the top and work down.

7. Try to spray the hard to reach and underneath surfaces first.

Common sense and some forethought will prevent errors. Remember, that a light wet film will generally produce better results than a heavy wet coat. When spraying a vertical surface it is advisable to apply a thin/light "tack" coat first, followed by a normal light wet coat. This technique will help prevent "runs" and "sags".

Chart C

Spray Gun Technique



When using your Spray Gun you control five variables:

1. Fluid flow.

2. Distance of the spray gun from your work. 4”-8” (10-20cm) is ideal. Closer if necessary.

3. Pattern direction (vertical fan, horizontal fan and round).

4. Speed of application.

5. Fan pattern size.

NOTE: Items 1, 2, and 4 directly relate to each other.

3.6 Cleaning Your Spray Gun

After you have finished spraying, follow these simple steps to clean your Coat Spray Gun:

Partial Cleaning

Cleaning your Spray Gun does not have to be a difficult task. Often, when spraying a variety of clear coatings, a thorough rinsing and wiping of basic parts is all that may be necessary. The basic steps below are for simple and easy cleaning of your Spray Gun.

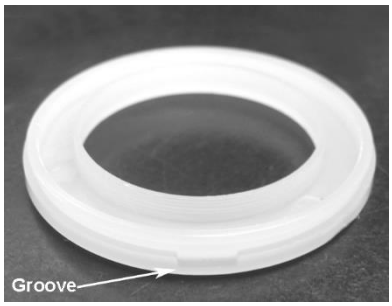
1. Empty any unused material (paint) from the cup and wash out any residue with an appropriate cleaner compatible with the coating, or water if using water-based material. Partially fill the cup with cleaner and spray through the gun to flush out the material passages.
2. Remove the air cap (#2) and clean. Ensure that all the air holes in the air cap are clean.
3. Clean the air distributor and the air cap ring thoroughly.
4. Using a brush and solvent, remove any paint deposits on the outer surface of the tip/nozzle (#3).
5. Unscrew and remove the material adjustment screw (#19).
6. Remove the needle spring (#20).
7. Pull the trigger and then pull the needle (#21) out through the back of the spray gun.
8. Remove the fluid nozzle (#3) with the wrench (spanner) provided.
9. Clean both fluid nozzle and needle assembly using cleaner or water and a brush.
10. Reassemble following the instructions in the next section for thorough cleaning. Make sure to oil the needle spring (#20), the Air Valve Stem (#14) and the Gland Seal (#24) to prevent the needle from sticking.
11. To adjust the Gland nut (#23) tighten until the needle sticks, then back off the nut about 1/8 turn. Do not over tighten the gland nut or the needle will stick. Do not under tighten or the Gland Seal will leak.
12. Check the Cup Top Gasket and replace if damaged. Always seat the cup top gasket flat in the cup groove. Failure to do this will allow the cup to drip and impair the spray pattern due to loss of cup pressure.

    NOTICE: Make sure to leave the Air Cap Ring (#1) lose until you use the spray gun the next time. This will prevent the Air Cap Ring (#1) from gluing itself to the Air Distributor (#6) causing damage to your spray gun.

Thorough Cleaning

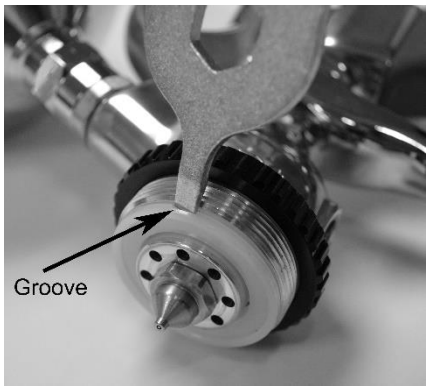
Follow steps above for partial cleaning.

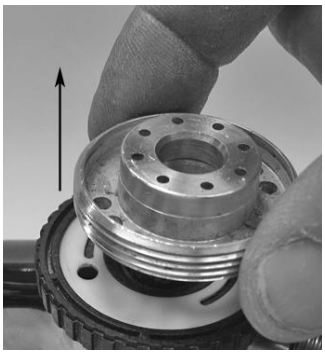
To further disassemble the spray gun now that you have already removed the air cap ring (#1), air cap (#2), fluid nozzle (#3) and needle (#21), locate the air cap seal (#4). To remove the air cap seal, lay the spray gun on its side.



1. Locate the small groove on the air cap seal. You can rotate the groove to a comfortable position for removal. (3 o'clock or 9 o'clock).

2. Place the flat tip of the wrench (spanner) in the air cap seal groove. Push in and pry up until the air cap seal pops out. (Clean if necessary).





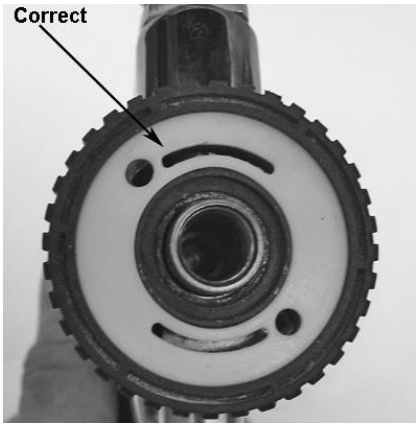
3. Remove the air distributor (#6) and clean if necessary.

4. Remove the fan adjustment ring (#8) and air distributor plate (#7). The air distributor plate is attached to the ring. These two pieces separate. Clean them both if necessary.

Note: Make sure you reassemble the two pieces correctly or you will only get a round fan pattern.

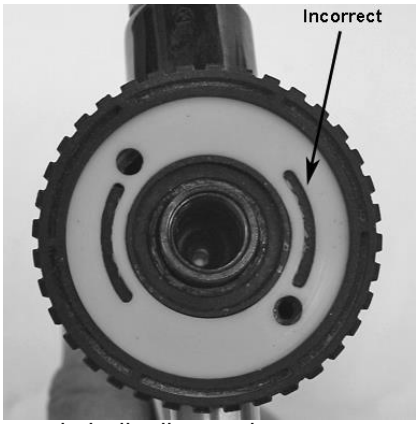
5. Remove the fan adjustment seal (#9). Clean if necessary.

Re-Assemble The Spray Gun



1. Insert the fan adjustment seal (#9).

2. Insert the fan adjustment ring and air distributor plate. (#7 and #8). If you have separated these two pieces it is critical that the white air distributor plate is correctly re-inserted into the fan adjustment ring. Note that the open slots on the air distributor plate must be visible through the holes of the fan adjustment ring.



Using the back end of the needle, move the distributor plate so that the round screw hole is at the 5 o'clock position. DO NOT put the distributor plate and fan adjustment ring together as show in the picture marked "incorrect".

1. Place the Air Distributor (#6) on top of the paired fan adjustment ring and Air Distributor plate.

2. Align the screw hole in the Air Distributor (#6) with the holes in the fan adjustment ring and air distributor plate.

3. Holding the head of the spray gun facing you, place the Air Distributor Assembly onto the body of the spray gun aligning the round hole with the locating pin in the spray gun body at the 5 o'clock position.

4. Screw the fluid nozzle (#3) back onto the spray gun, finger tight. Rotate the fan adjustment ring to be sure it rotates freely and easily. Tighten the nozzle slightly more with the wrench (spanner). Rotate fan adjustment ring again. Do not over tighten the fluid nozzle as it will stop the fan adjustment ring from rotating. If too tight, back off slightly. Be sure that the fluid nozzle is not too loose or leaking will occur.

5. Insert the air cap seal (#4). To insert, observe both sides of the seal. One side should have three small circles. This side goes toward the spray gun. Snap the air cap seal onto the air distributor (#6).

6. Push the needle (#21) back into the spray gun.

7. Insert the Needle spring into the Material Adjustment Screw (#19).

8. Install the Material Adjustment Screw with Needle Spring (#20).

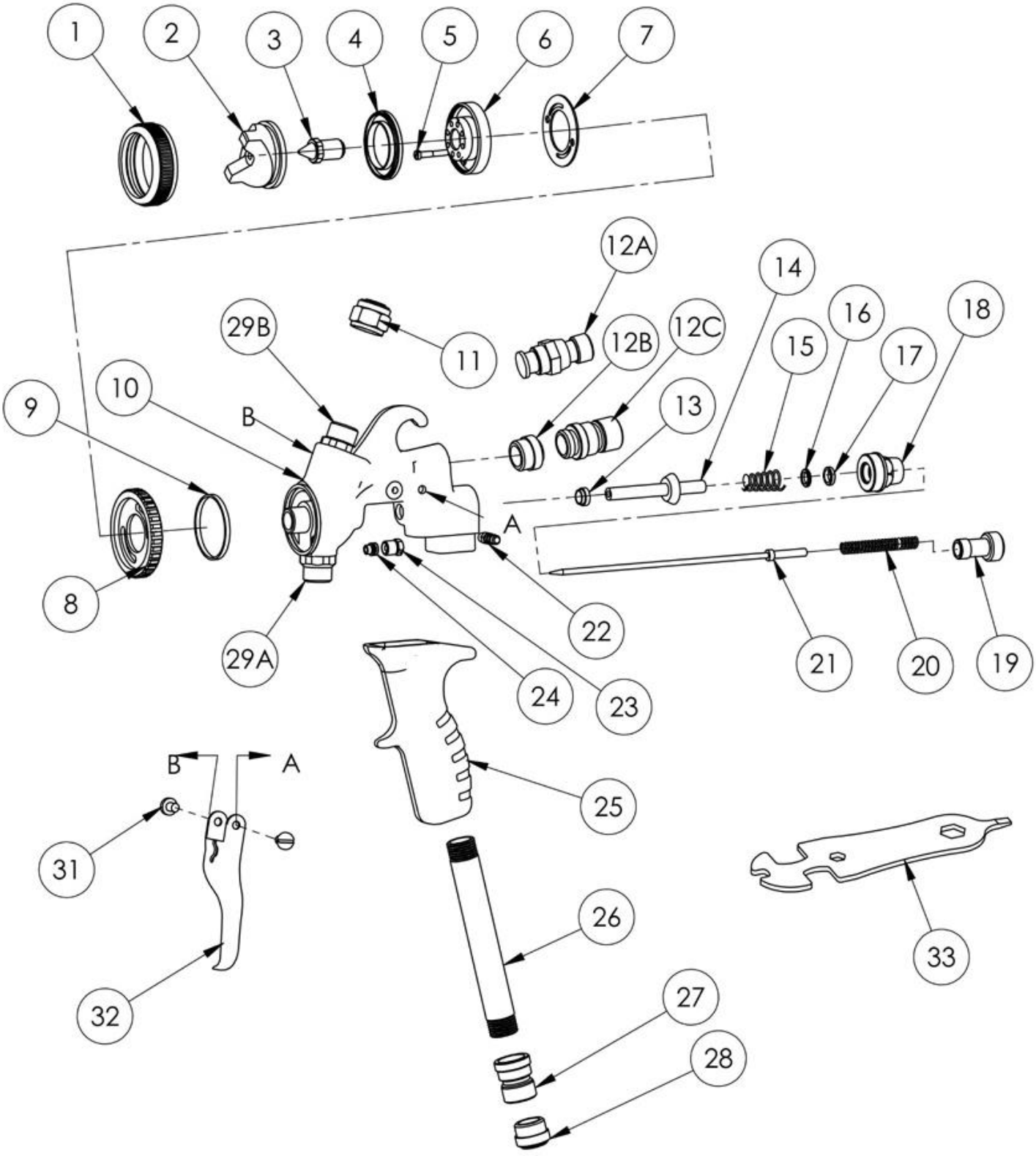
9. Install air cap and air cap ring. Spray gun is now re-assembled and ready to use.

Periodically, use lubricant to lubricate the air valve bushing as shown.

⚠CAUTION

Pressure will remain in the spray cup when unit is off. If you pull the trigger back, a stream of fluid will flow. To prevent accidents, turn material flow screw clockwise until it is completely closed. The trigger is now locked in the closed position.

To relief the cup pressure prior to opening the cup use the twist connector located between the check valve and the cup lid. Undo the connector and the air pressure will exhaust through the tube. If you don't relieve the air pressure prior to opening the lid on the cup, paint can fly out and down the side of the cup.


1
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12A
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29B
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A
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20
19
29A
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32
28

33	1	A7534	WRENCH
32	1	A7532	TRIGGER
31	2	A7531	TRIGGER SCREW (2)
29B	1	A7511	GRAVITY MATERIAL CONNECTOR (TOP FEED)
29A	1	A7530	MATERIAL CONNECTOR (BOTTOM FEED)
28	1	A7544	AIR BLANKING CAP, HANDLE (OPTIONAL)
27	1	A7526	MALE QUICK CONNECT (TURBINE AIR)
26	1	A5226L	HANDLE TUBE
25	1	A7524	HANDLE
24	1	A7527	GLAND SEAL
23	1	A7528	GLAND SEAL NUT
22	1	A7523	AIR FEED CONNECTOR
21	1	A7520	NEEDLE ASSEMBLY
20	1	A7521	NEEDLE SPRING
19	1	A7522	MATERIAL ADJUSTMENT SCREW
18	1	A7519	AIR VALVE RETAINING NUT
17	1	A7517	AIR VALVE SEATING GASKET
16	1	A7518	AIR VALVE RETAINING NUT GASKET
15	1	A7516	AIR VALVE RETURN SPRING
14	1	A7515	AIR VALVE STEM
13	1	A7514	AIR VALVE BUSHING
12C	1	A7543	UPPER PORT AIR HOSE COUPLER (OPTIONAL)
12B	1	A7513	AIR BLANKING CAP (UPPER PORT)
12A	1	A7546	OS CONTROL (OPTIONAL)
11	1	A7533	MATERIAL BLANKING CAP
10	1	A7510	SPRAY GUN BODY
9	1	A7509	FAN ADJUSTMENT SEAL
8	1	A7508	FAN ADJUSTMENT RING
7	1	A7507	AIR DISTRIBUTOR PLATE
6	1	A7506	AIR DISTRIBUTOR
5	1	A7505	AIR CAP ASSY SCREW
4	1	A7504	AIR CAP SEAL
3	1	A7503	FLUID NOZZLE
2	1	A7502	AIR CAP
1	1	A7501	AIR CAP RING
ITEM NO.	QTY.	PART N0.	DESCRIPTION
PARTS LIST			

Get To Know Your Paint Application System

Hand hold Spray gun Docking Station
Your PAS comes equipped with two Hand-Hold Spray Gun Docking Stations (A). Store, hold or transport your spray gun in a vertical position with no risk of it falling over. Ready to spray when you are. Disconnect the air hose from spray gun and insert spray gun handle coupler into the Hand hold Spray gun Docking Station (A), as shown.

4. Paint Application System Operation

The Paint Application system is the newest creation by HBC system. The Paint Application System Precision Air Control Technology accurately enables you to control the air pressure from the system to within 1/10th of a PSI. Paint Application System comes supplied with two Spray guns and a 37' air hose.

In order to operate the Paint Application System it is important to connect the air hose and spray gun. The system will not operate correctly without back pressure to the motor, which means the spray gun and air hose need to be connected. The Paint Application System is NOT compatible with "Bleeder" style spray guns.

To operate your Paint Application System connect the male end of your air hose to the system. Next, connect the female end to the spray gun handle coupler. Your air hose is now connected to the system and the spray gun. Next, plug the system into the appropriate electrical outlet. Next, push the ON/OFF switch to the ON position. The factory has calibrated your motor for the maximum output pressure possible. To get an accurate stable spraying pressure it is advised that you let the system warm up for about 5-10 minutes prior to spraying. Once the motor is warm the LCD will give you an accurate pressure reading to 1/10th PSI with little or no fluctuation.

It is important to understand the difference between static or sealed pressure vs. flow pressure. When setting the air pressure for spraying you should always set the flow pressure. You can set the flow pressure by connecting the spray gun and air hose and turning the system on. Turn the material flow screw on the spray gun about 2 full turns counter clockwise. Make sure you don't have any material in the cup or that you don't pull the trigger back all the way. If you do, you will release the material in the cup. You only need to release the air pressure from the spray gun, not the material in order to set the flow pressure. This is why it is preferable to set the pressure without any material in the cup. Pull the trigger and release the air from the spray gun. While continuing to pull the trigger, adjust the pressure to the spraying pressure of your choice. Once you have set the pressure release the trigger. The pressure will stay where you set it. Pull the trigger again and watch the LCD screen. You will notice the air pressure drop and then go back to where you set the pressure. This will work for any pressure setting. NEVER set the air pressure at full power with the spray gun closed. This will not give you any additional spraying pressure and will only overwork and possible overheat your motor when not being used.

The control board will automatically adjust the motor speed to compensate for barometric pressure and elevation. The pressure reading in the LCD will always be accurate. To decrease the pressure from the maximum setting simply turn the knob underneath the LCD pressure display counter-clockwise, toward "MIN". To increase the pressure once reduced, turn the knob clockwise, toward "MAX". As you turn the knob, the pressure will increase or decrease accordingly. The scale on behind the knob is there only to indicate the direction to increase and decrease the pressure. The scale behind the knob does not represent any settings for the air pressure, this is only to indicate the direction of increased or decreased air pressure.

The viscosity of the coating you want to spray will determine the amount of air pressure needed. The thicker your viscosity, the more pressure you will need to atomize it properly. For highest efficiency, use the lowest pressure that produces the best atomization and finish results. If you experience "Orange Peel", increase the pressure. If you have too much overspray, decrease the pressure.

The Paint Application System is equipped with an “Overheat” system. The Overheat system works to help prevent overheating your motor. To prevent damage to the motor the system/unit will shut itself down if it gets too hot. Overheating is usually caused by clogged or dirty filters. The more the filters are restricted the hotter the motor will run. Once the overheat point has been reached the system will shut off until the temperature inside the unit has cooled enough for the motor to once again operate normally. When this happens an “OVERHEAT” message is displayed in the LCD screen. Do not ignore this warning. Clean or change your filters to prevent this from happening again.

Paint Application System also is equipped with an hour meter, which records the use of the PAS in whole hours. To see how many hours of use your PAS has, turn the power control knob counter-clockwise until the indicator mark on the knob lines up with the line for the Hour Meter. The LCD will then display the hours of use rather than the pressure.

NOTE:
**All pressures quoted are measured sealed and at the motor outlet. Actual spraying pressures will vary when the spray gun and hose are connected.*

5. Air Pressure and Viscosity

When using your Paint Application System it is important to understand the nature of the coating you are spraying and the viscosity. Fairly thin materials like Base coats can generally be sprayed with approximately 2-4 PSI. Medium bodied materials such as sealers will require a little more air pressure, approximately 4-6 PSI. High Solids and heavy viscosity materials are going to require 6 PSI or more to atomize them nicely. Always use the minimal amount of air pressure possible to achieve the best results.

Chart E

Performance

Suggested Flow Air Pressure	Coating Types
2-4 PSI	Low-Medium Viscosity Materials
4-6 PSI	Medium Viscosity Materials
6+ PSI	High Viscosity Materials

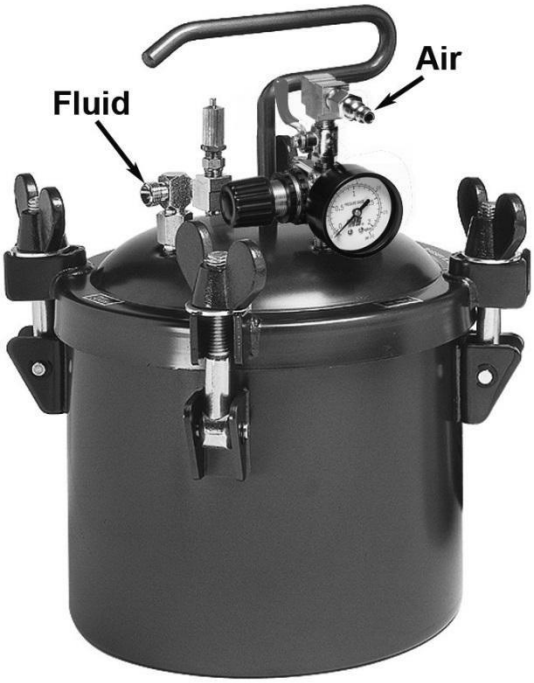
6. Using Pressure Pots with System

There are many advantages to using pressure pots with a PAS. HBC-System Sprayers have made this very easy with our fluid feed systems, 4500 and 4550. Refer to the accessories section of this manual for more information on these and other products. By removing the paint cup from the spray gun you immediately reduce the overall weight of the spray gun by ½. You also get a smaller tool to hold in your hand thereby allowing you to more easily access tight spaces where a standard cup gun would not fit. By using a pressure pot you are able to spray larger quantities of material without stopping to refill a smaller cup. This can save a lot of time on a long job where you are spraying the same material on a bus or truck.

Using a pressure pot with a PAS is very easy. All you need is any size pressure pot, a fluid hose and a small air brush air compressor. When using a remote cup or pressure pot, it is necessary to introduce compressed air in order to pressurize the remote pot and move the fluid from the pot to the spray gun nozzle. In general 5 PSI (0.345 Bar) of air pressure is adequate to push most average viscosity fluids to the spray gun nozzle. Higher pressure would only be necessary for heavier viscosity fluids or if you are spraying up a ladder where the fluid has to travel more than 6 feet of elevation.

Connect the black fluid hose to the fluid outlet on the top of the pressure pot. Refer to your pressure pot instructions for the specific location of the fluid outlet. Seal the threads with Teflon tape and tighten with a wrench (spanner) to assure no fluid leaks once you pressurize the pot. Next, connect the air line from your compressor to the air inlet. This should be a male quick connect adjacent to the regulator and gauge. If your quick connect is the same style as the one on the pot you can pull back the ring on the female end and insert into the male end, releasing the ring to fasten them together. Connect the other ends of the fluid line and air line to the spray gun and air compressor respectively. Your air hose will connect as normal directly to your spray gun.

Part #A4900 - 2.5 gallon (10 liter) deluxe pressure pot.



Part #A4600 - 2 quart (2 liter) pressure pot.

6.1 Testing Air Pressure in a Pressure Pot

It is necessary to test the air pressure in the pressure pot to make sure that it is appropriate for the viscosity of material being sprayed and the situation in which it is being sprayed. You don't want the material coming out too quickly so that you get runs and sags, but you also don't want it to come out too slowly so that you are spraying very slowly. To test the air pressure in the pressure pot follow these simple instructions:

1. DO NOT turn on the PAS at this time.

2. Make sure your air hose and material hoses are connected appropriately to the pressure pot.

3. Turn on your air compressor and wait until you have about 5PSI (0.345 Bar) in the pressure pot. Then, pull the trigger on the spray gun until a stream of fluid flows from the nozzle. NOTE: This may take a few minutes depending on the length of your fluid hose.

4. Adjust the pressure on the pot regulator until the fluid drops off or bends at approximately 2-1/2 " (6.35cm).

5. Your pot air pressure should be correct at this point, however, if the stream bends too short then increase the air pressure. If the stream bends too far, then reduce the air pressure. If you need additional help, please feel free to call our technicians at 1-888-900-4857.

⚠CAUTION

Depressurize pressure pot using safety valve when equipment will be idle for a while. This will prevent excess fluid from remaining in fluid hose, and prevent a possible accident if the trigger is pulled causing material to stream from the spray gun.

Always ensure that the remote pot is tightly sealed, and all gaskets are in good shape, to prevent air and fluid leaks. Be sure to flush and clean the fluid hose at the end of a work session. For smaller jobs, insert a one gallon can inside the 2.5 gallon (10 liter) pressure pot. This will help to keep the inside of the pot cleaner.

NOTE: It may be necessary to provide extra clearance by removing the filter on the bottom of the pickup tube for some paint cans to fit inside the 2.5 gallon (10 liter) pressure pot.

6.2 Cleaning Your Pressure Pot

Cleaning your pressure pot is important to many years of long faithful service. If you don't clean your pressure pot it will eventually get clogged up with dried material from previous jobs. Make sure you not only clean your pressure pot well, but do it quickly after you are done spraying so as to reduce the amount of time the material has to dry. To clean your pressure pot follow these simple instructions:

1. Remove the lid and pour your remaining finish back into your can or if you have reduced it, into a different container for storage.

2. Pour solvent or water (depending on the type of finish you have used) into the pressure pot and reseal the lid.

3. Re-pressurize the pressure pot with air.

4. Turn on your Paint Application System and pull the trigger on the spray gun fully open until the material comes out clean.

5. Remove the lid once again and pour out any unused water or solvent.

6. Wipe the inside of the pressure pot, pickup tube and lid with a clean rag.

7. If you use water-based materials, dry the pressure pot.

8. Store in a clean dry place for use next time.

7. Record of Use

Record Of Use		
Model	**Serial #**	**Date Purchased**
Date	**Hours Of Use**	**Total Hours**

Recommended Maintenance: Clean and/or change pre-filters and/or cartridge filters every 50 hours or when necessary. See Accessories Page for appropriate filter replacement for your model.

8. Record of Maintenance

Record Of Maintenance	
Date	**Maintenance Performed**

9. Maintenance and Cleaning

⚠CAUTION

Always unplug your PAS from the main electrical supply before doing any maintenance or repairs.

After Each Use:

Your Paint Application system requires very little maintenance. The motor has sealed bearings that are lubricated for life. The only maintenance that you will need to perform is checking, cleaning and replacing your filters and pre-filters as required. It is very important that your motor has cool, clean air to operate efficiently. If you maintain your filters and pre-filters well, you will enjoy many years of long service from your motor.

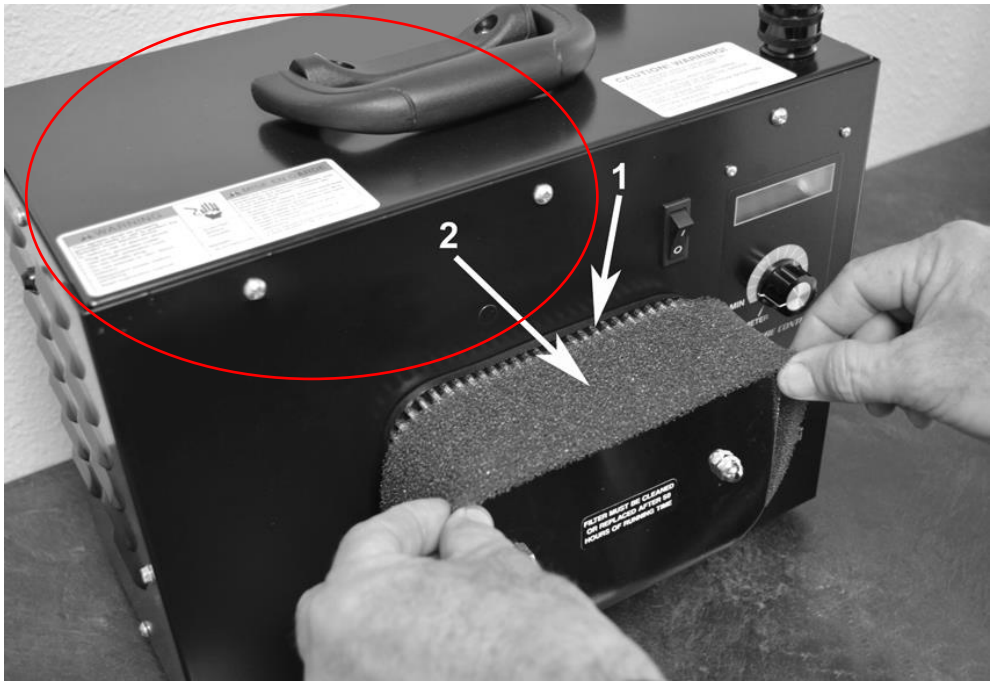
NOTICE

Always use genuine Paint Application System filters from HBC system and pre-filters. Other types of filters and pre-filters may prevent proper air flow to the motor, resulting in premature motor failure and voiding your warranty.

9.1 Pre-Filter Maintenance

We recommend that you remove your pre-filters after each use. To remove the pre-filters: push your finger between the filter (1) and pre-filter (2) until you can curl it up and pull the pre-filter off, rotating your finger around the pre-filter as you pull. Do not pull hard as you will break the glue line on the pre-filter. Make sure you check both pre-filters as they can get dirty at different intervals. If they appear to be a little dirty or clogged, you can wash them out using a mild soap and warm water. If they are not cleanable you need to install new pre-filters.

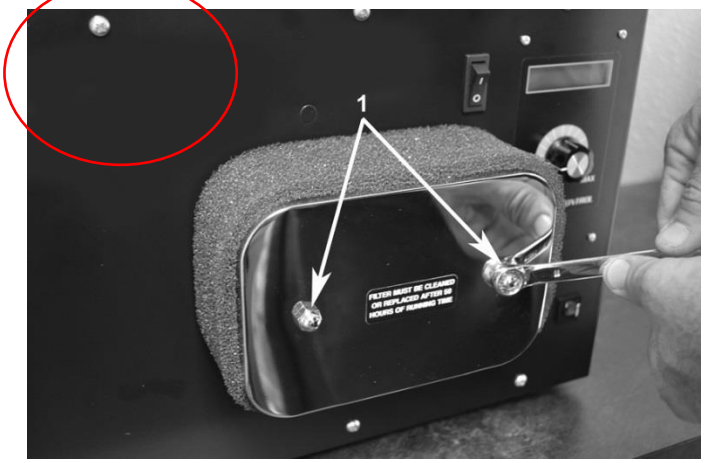
To reinstall the pre-filters, hold one in both hands and apply the top first, moving your fingers around the inside as you slide it back over the filter cartridge from top to bottom. NEVER operate your PAS without both filters and pre-filters installed and clean.

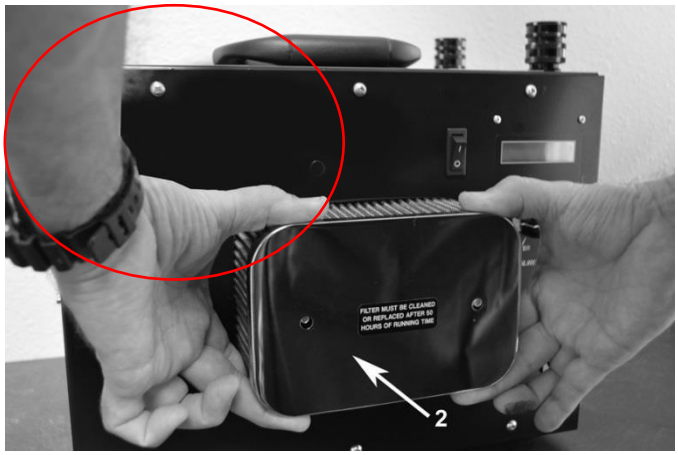


9.2 Filter Maintenance

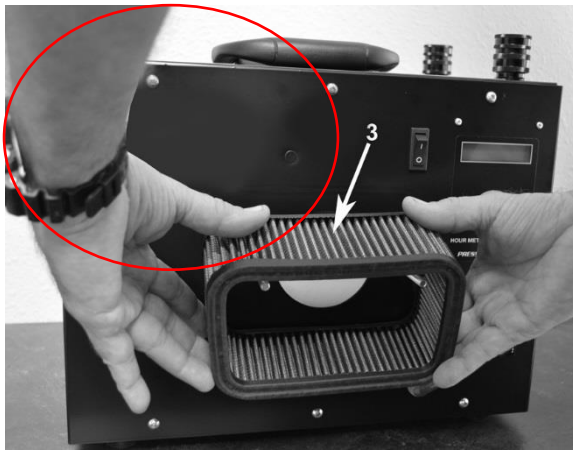
Visually check your filters when you remove your pre-filters for cleaning. Check for accumulated material in the filter element. If you suspect they may be dirty, or if you can see material building up, don't take a chance, remove the filter and hold it up to the light.

To remove your filters, remove the two dome nuts (1) and pull filter plate (2) off. Filter plate can hang up on the threads so make sure you pull it off straight.





Remove filter (3). If filter is stuck to the side of the case, gently tap them with your hand.



To check your filters, hold them up to a light, similar to your car air intake filter. If you cannot see light through more than 50% of the filter, replace filter element.

NOTICE

Filter element may be damaged if more than 50 PSI of air pressure is used to blow out filter element.

If they appear to be dirty, you can tap them gently on a flat surface to remove any debris. If you have compressed air available, you can also blow them off with air. If you use compressed air to clean your filters, make sure you blow the air from the inside out and never use more than 50 PSI or this will damage the filter element. You can also use a filter cleaner and wash your filters. Follow normal cleaning instructions of the bottle of cleaner you are using. To reinstall the filters, reverse the instructions above. Make sure that the filters are dry if you used water and you line the filter up with the filter plate first. This will help to keep it straight when replacing the dome nuts.

10. Warranty

Two Year Warranty

The machine and Equipment are WARRANTED by HBC system for a total period of TWO YEARS from the ORIGINAL date of purchase by the ORIGINAL PURCHASER. Proof of purchase to be included and all SHIPPING CHARGES to be pre-paid.

HBC system upon examination of the machine/equipment will replace or repair at their discretion any defects in material or workmanship.

This WARRANTY does NOT include: misuse, damage, neglect, alterations, disassembled equipment or modifications, lack of maintenance, cleaning, water damage to electrical parts, INCORRECT VOLTAGE CONNECTION.

This Warranty is in lieu of all other express warranties, any WARRANTY implied by law, including but not limited to, implied Warranties of merchantability or fitness, is excluded to the maximum extent permitted by law and, if not excludable, is limited to the duration of the express Warranty.

No representative or person is authorized to extend this Warranty or to create for HBC-Systems any other liability in connection with the sale of any HBC system product. HBC system shall not be liable for any consequential, incidental or special damages of any kind directly or indirectly resulting from breach of any express or implied warranty.

Some countries do allow the exclusion or limitation of incidental or consequential damages or limitations on the length of any Warranty so that the above limitations and exclusions may not apply to you: however, to the maximum extent permitted under applicable law, the only rights and remedies shall be to obtain a replacement for any defective product.

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

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