

INSTRUCTION MANUAL



DO NOT USE EQUIPMENT BEFORE READING THIS MANUAL

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

©2013 Apollo Sprayers International, Inc.

WARNING

DO NOT USE EQUIPMENT BEFORE READING THIS SECTION

In order to assure safe operation of your spray system, please read the following instructions carefully.

- Always follow solution manufacturer's safety instructions and warnings.
- Always spray in a well-ventilated area.
- We recommend that you use an approved face mask
- Always store indoors, never allow unit to freeze.
- Always use original manufacturers replacement parts
- Never spray flammable materials from the Spray Tanning Center.
- Never alter or modify any part of this equipment; doing so can cause equipment malfunction and/or bodily injury.
- Never attempt to clean any part of the turbine motor while it is plugged in.
- CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT EXPOSE TO WATER.
- Never leave spray equipment unattended. Keep away from children or any person not familiar with spray equipment.

GROUNDING INSTRUCTIONS

This product should be grounded. In the event of an electrical short circuit, grounding reduces the risk of electrical shock by providing an escape wire for the electric current. This product is equipped with a cord that has a grounding wire and appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not operate unit with a damaged cord or plug. Do not pull or carry unit by the cord. Keep away from heated surfaces. Do not unplug by pulling on the cord.

DANGER

Improper installation of the grounding plug can result in the risk of electric shock. Check with a qualified electrician or service member if in doubt as to whether the product is properly grounded. Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician. Make sure that the spray-tanning center is connected to an outlet with the same configuration as the plug. DO NOT USE ANY ADAPTERS WITH THIS PRODUCT.

Be sure that you are plugging the unit into a proper outlet for the electric current designed for your spray system. Incorrect voltage will damage or burn out the motor.

USING EXTENSION CORDS

Use only a three-wire extension cord with a 3-slot receptacle similar to the plug on the turbine. Make sure your extension cord is in good condition. When using an extension cord, be sure to select one that will carry a heavy enough current for the turbine motor. An undersized cord will cause a drop in the line voltage resulting in loss of power and overheating. If in doubt use the next heavier gauge. The smaller the gauge number, the heavier the wire thickness. Please use the chart below as a guide to selecting the proper size extension cord.

For length less than:	Use extension gauge:
25ft (7.62m)	16AWG
50ft (15.24m)	14AWG
100ft (30.48m)	12AWG
150ft (45.72)	10AWG

CONGRATULATIONS! You have just purchased the finest HVLP Spray system available. You are about to enjoy the great benefits of **TrueHVLP™** spraying, flawless applications and a very short learning curve. Our designs are the result of many years experience in manufacturing **TrueHVLP™** Turbine spray systems, and **TrueHVLP™** spray guns.

Whether you are new to spraying, you have sprayed before, or are just new to HVLP spraying; there are some basic spraying 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 spray system.

INSTRUCTIONS

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

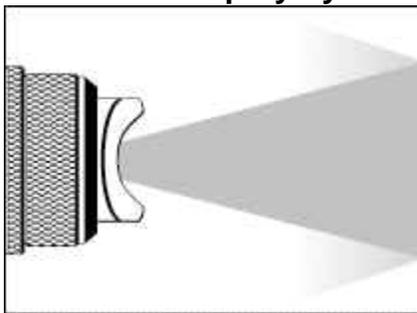
1. Turbine Spray unit
2. Spray Gun
3. Air hose
4. Instruction Manual
5. Electric Cord

HOW YOU'RE ECO SERIES TRUEHVLP™ SPRAY SYSTEM WORKS

Your **Apollo ECO Series TrueHVLP™ Spray System** has three components: the turbine unit, an air hose and the spray gun. The Turbine 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, low-pressure turbo air. The air hose connects the Turbine unit to the spray gun. Air flows through the hose to the nozzle of the specially designed **Apollo ECO** spray gun. Atomization of the material/coating is achieved when the high CFM of airflow mixes with the stream of fluid passing through the specialty designed tip/nozzle. This low-pressure atomization principle achieves minimum misting (overspray) to the spray environment and maximum solution transfer efficiency to the substrate because of less "Bounce Back". The Turbine has one air hose outlet on the side of the unit and is designed to run one spray gun.

Bounce Back Comparisons

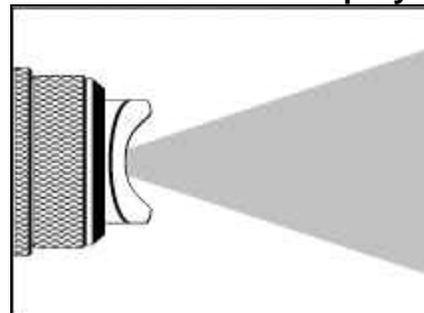
Conventional Spray Systems



Conventional spray systems:
12-20 PSI @ 8 CFM

- 30-50% transfer efficiency
- Excessive, costly Solution waste
- Unhealthy for operator and harmful to the environment

Apollo ECO TrueHVLP™ Spray System



TrueHVLP™ Spray System
7.0 PSI @ 85 CFM

- Up to 90% transfer efficiency
- Substantial Solution savings
- Cleaner and safer for both operator and environment

Your **Apollo ECO E5011** or **E7000** spray gun offers you many options. You can turn the air cap (#2, E5011 or #1-2, E7000) to three positions. One will produce a horizontal pattern for spraying across, another will produce a vertical pattern for spraying up and down, and the third will produce a round pattern to spray small or narrow pieces.

PREPARING TO USE YOUR ECO SPRAY SYSTEM

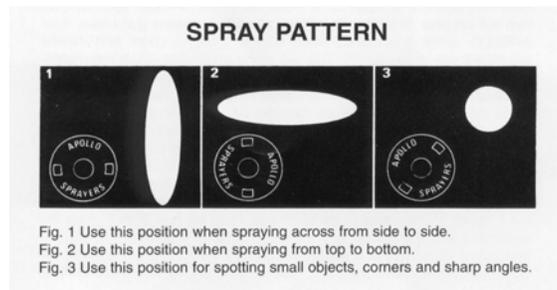
Connect the air hose to the Turbine, pull back the spring-loaded quick disconnect coupler and insert the male connector on the air hose into the turbine connector. Release the ring. Your air hose will be locked into place. To disconnect, pull back on the connector to release the air hose. **CAUTION:** If you have just finished spraying, the metal coupler at the turbine end may be hot.

Plug the electric cord into a correctly grounded electrical outlet. Be sure the electric current is the correct voltage. If you need to use an extension cord, be sure it is at least 12-gauge wire and has a correctly grounded outlet. (240v units for use outside of the United States are often only supplied with an electric cord. A correct plug must be installed prior to use. Make sure the ground wire is properly connected).

Select a safe, well-ventilated area where you will spray your client. Locate your Turbine unit away from the area where you will be directly spraying.

FAMILIARIZING YOURSELF WITH YOUR APOLLO E5011 SPRAY GUN

Familiarize yourself with the controls on the E5011 spray gun. There are three principal controls: The rotating air cap (#2); the material flow screw (#18); and the air cap locking ring (#1). Click the rotating air cap into each position; Horizontal, Vertical and 45°. When the air cap is in the 45° position the pattern is round. This is useful for spraying small, narrow areas. Fluid flow will increase when using the round pattern so it is usually necessary to reduce the fluid flow by adjusting the flow screw (#18).



Next, turn the material flow screw (#18) anti- or counter-clockwise to open or release more fluid, clockwise to reduce or close material flow.

Last, loosen the air cap locking ring (#1) one or two turns. This will feather the top and bottom of the fan pattern and slightly reduce the fan pattern size. **NOTE:** The nozzle (#6) should never sit behind the center hole of the air cap (#2). Always make sure that the nozzle is slightly protruding through the center hole of the air cap.

FAMILIARIZING YOURSELF WITH YOUR APOLLO E7000 SPRAY GUN

Familiarize yourself with the controls on the spray gun. There are three principal controls: The rotating air cap (#1-2); the Fluid Adjusting Knob (#22); and the Air Adjusting Knob (#12). Loosen the Air Cap Ring (#1-1) slightly to turn the rotating air cap to each position, Horizontal and Vertical. The horizontal position will give you a vertical fan pattern. The vertical position will give you a horizontal fan pattern.

The Air Adjusting Knob (#12) will allow you to achieve the round pattern. To obtain the round pattern turn the knob so that it is in the horizontal position. When the knob is in the horizontal position the spray gun will only give you a round pattern. This is useful for spraying small, narrow areas or touching up a small area. When the knob is in the vertical position you will only get a fan pattern.

Next, turn the Fluid Adjusting Knob (#22) anti- or counter-clockwise to open or release more fluid, clockwise to reduce or close material flow. **NOTE:** If you are using the round fan pattern it is usually necessary to reduce the amount of fluid.

PREPARING TO SPRAY

You should now be ready to spray your project. Good quality results with your **Apollo ECO TrueHVLPTM Spray System** combination of careful preparation of your substrate, a proper spraying environment, a basic knowledge of the material/coating you will be using and how these materials work with your **Apollo ECO Series Turbine**.

Using Your Apollo ECO Spray Gun

Your **Apollo ECO** Spray Gun is certified. This means your spray gun uses no more than 10 PSI. All passages and air ports are much larger than a conventional spray gun. If one of these air passages becomes blocked, or build up of material starts to occur, your spray pattern will become distorted, therefore, always keep your spray gun clean. The E5011 spray gun comes fitted with a 1.0mm tip/nozzle (#6) and needle (#15) (inscribed with a number 2). The E7000 comes fitted with a 1.3mm nozzle (#2) and needle (#20). These sizes will effectively spray most wood coatings. Using these sizes of tip/nozzle and needle you can achieve a 1/4" line up to a 10" fan pattern, simply by rotating the air cap (#2, E5011 or #1-2, E7000) to the desired fan type, opening the material flow screw (#18, E5011 or #22, E7000) counter-clockwise and moving the spray gun closer or further away from your work piece. A little practice will enable you to master this technique in no time flat!

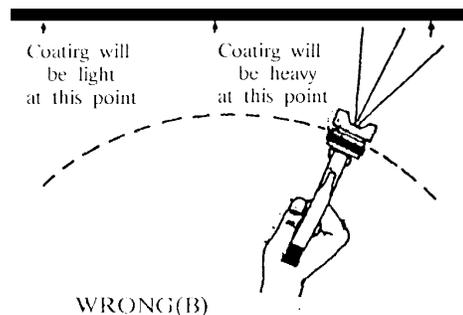
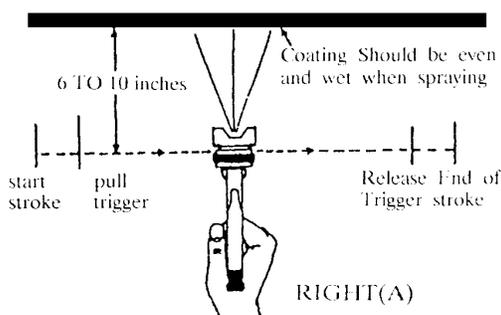
PRACTICE:

VERY IMPORTANT!! Remove the cup from your spray gun by moving the lever on the top of the cup lid over to one side. Fill it approximately half way with some water. Reattach the cup to the body of the spray gun and lock down the lever to create a good seal. Attach the spray gun to the air hose and the other end of the air hose to the turbine. Turn the turbine unit on. The E5011 is a bleeder spray gun, which means you will notice air is now flowing through the air cap, this is normal and correct. The E7000 spray gun is a non-bleeder spray gun, which means you will not have any air flowing through the spray gun until you pull the trigger. The first stage of your pull will release the air, then the second stage will release the fluid. Position the air cap (#2, E5011 or #1-2, E7000) in the horizontal or vertical position, turn the material flow screw (#18, E5011 or #22, E7000) clockwise until closed. Make a mark on the material flow screw at 12:00 (Noon), and then adjust the material flow screw to 8:00; this will give you a good starting point. Point the spray gun away from yourself (and anyone else) and pull the trigger all the way back. You should see a "V" shaped mist (or triangle) called a fan pattern. Now, with the trigger depressed, if you turn the material flow screw, clockwise (closing) making very small adjustment's at a time, you will notice that the fan pattern is beginning to get smaller. Now, reverse this and notice the pattern will get larger. Take a large piece of cardboard and direct the pattern at the surface, hold the spray gun approximately 6"-8" from the surface. Pull the trigger, observe the outline and size of the pattern. Now, turn the material flow screw clockwise (closing). Move the spray gun an inch or two closer to the surface. Pull the trigger. Notice the pattern has become smaller. You can continue reducing the material flow and move the spray gun even closer to the surface and the pattern will continue to get smaller and smaller. Next, with your E5011 spray gun rotate the air cap to a diagonal position or with your E7000 turn the Air Adjusting Knob to the horizontal position. Play with varying the material flow and the distance of the spray gun from the work surface. Notice the change in pattern size.

Caution: Even when the turbine unit is off, pressure will remain in the spray cup. If you pull the trigger back, a stream of fluid will flow. To prevent accidents, turn material flow screw (#18, E5011 or #22, E7000) clockwise until it is completely closed. The trigger is now locked in the closed position. You can also simply aim the gun at a towel and pull the trigger to release any pressure in the cup.

Note: It is not necessary to empty and clean your spray gun when you pause between applications. Be sure, however, to clean your spray gun thoroughly at the end of your work session. It is a bad idea to leave materials in your spray gun overnight.

PROPER SPRAY TECHNIQUE



TURBINE MAINTENANCE & CLEANING

The **Apollo ECO Series** Turbine unit needs virtually no maintenance. The motor has sealed bearings that are pre-lubricated. No service is necessary. Periodically, the **Apollo ECO Series** turbine's air filters should be examined. Clean filters are critical to good performance and equipment longevity. Your **Apollo ECO Series** Turbine has 2 replaceable filters. Remove the two hex-head securing nuts in order to remove the filters for cleaning or replacement. Periodically wash and blow excess dust and dirt with water and an air compressor. Dirty filters will reduce the air being drawn through the motor, causing the unit to run abnormally hot, diminish spray performance and reduce the life of the motor. Clean and/or replace. Use the maintenance record sheet to keep track of your equipment use.

Turbine Recommended Maintenance: Clean and/or change pre-filters and/or cartridge filters every 50 hours or when necessary.

SPRAY GUN MAINTENANCE AND CLEANING

You do not need to clean your spray gun every time you stop spraying. Either set the spray gun down carefully so as not to tip it over, or hang it by the hook provided on the spray gun. You should, however, clean your spray gun at the end of a work session or at the end of the day. It is not a good idea to leave material in the spray gun over night. Also, pay careful attention in keeping the threads on the main gun body clean. Dried material on the threads can cause the parts to bind.

1. When you have finished spraying, pour the remainder of your material out of the spray gun cup. Pour in a small amount cleaning fluid. Use a cleaner that is compatible with the coating you just sprayed. (Water if product is water-soluble). Shake the spray gun gently. Wait about 30 seconds and spray out the cleaner in the cup. To protect the environment, you can spray the cleaner into a container or into a large rag that you have wadded into a large ball.
2. If necessary, remove the fluid nozzle (#7, E5011 or #2, E7000) and nozzle washer (#17, E5011 only). A standard wrench will fit the flanges on the fluid tip. Be careful not to loose or misplace the nozzle washer. Rinse with appropriate cleaner.
3. To remove the fluid needle assembly, turn the fluid adjusting screw (#16, E5011 or #22, E7000) all the way counter (anti) clockwise until it comes out of the spray gun. Carefully remove the spring (#14, E5011 or #21, E7000). Pull the needle assembly back towards you and out of the spray gun. Wipe or rinse clean.
4. Wipe all exposed areas clean.
5. Although they might not need attention every time you spray, you should be aware of two additional important parts on your spray gun. One is the cup gasket (#11) and the fluid needle packing (#20, E5011 or #27, E7000). The cup gasket insures that the cup is properly sealed to the spray gun body, the cup is properly pressurized and no fluid leaks from the spray gun cup. Replace if necessary. The fluid needle packing compresses around the fluid needle assembly to prevent fluid from leaking around the needle. This is adjusted by tightening (or loosening) the needle packing screw (#21, E5011 or #28, E7000). Be sure that this nut is not too tight so that it does not allow free movement of the needle assembly. Be sure that this nut is not too loose as to permit fluid to leak around the needle. Normally, this is preset at the factory and should need no adjustment. Replace fluid needle packing when it becomes impossible to prevent leaking.
6. Store your spray gun for the next use.

Spray Gun Recommended Maintenance: Check: Cup gasket, nozzle gasket, gland seal, air cap holes, nozzle/needle assembly every 50 hours or when necessary. Clean or replace parts as needed.

TROUBLESHOOTING

1. Material cup full, turbine air is supplied to the spray gun. Trigger is pulled and no solution comes out - Reason: Cup not pressurizing.

Check:

- A) Air Feed Tube/one way air valve
- B) Air Feed Connector
- C) Cup top gasket is not damaged.

2. E5011 only. When spray gun is connected to a turbine and the turbine is on, air continually flows through the air cap even if the trigger is not pulled.

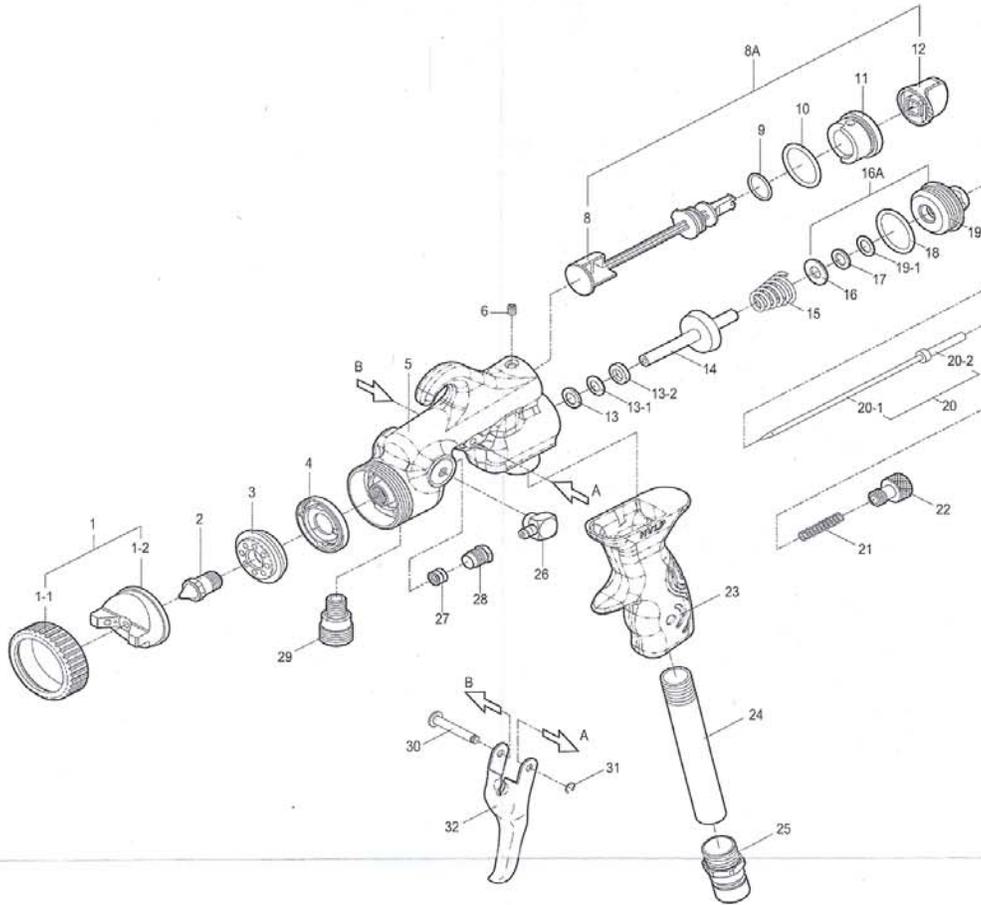
Response: This is correct; “bleeder” type guns are necessary and desirable to ensure longevity of the turbine motor.

3. If you think that you are getting too much “overspray”.

Try: Moving the spray gun closer to the work or closing down the fluid flow. Remember your spray system is designed to be used no more than 8”-10” away from your substrate. Make sure you are no further than that away when spraying and you should minimize your overspray.

Please feel free to call the factory if you have any additional question concerning cleaning or operation of your spray system. The factories toll free number is 1-888-900-HVLP (4857).

E7000 SPRAY GUN DIAGRAM



Item No.	Description	Q'ty	Item No.	Description	Q'ty
1	Air Nozzle Set	1	16	Gasket	1
1-1	Cap Ring	1	17	Gasket	1
1-2	Air Nozzle	1	18	O-Ring	1
2	Fluid Nozzle	1	19	Bushing	1
3	Distribute (Aluminum)	1	19-1	GASKET	1
4	Distribute (Plastic)	1	20	Needle Assembly	1
5	Body	1	21	Spring	1
6	Screw	1	22	Fluid Adjusting Knob	1
8A	Pattern Adjusting Assembly	1	23	Handle (Plastic)	1
8	Pattern Adjusting Needle	1	24	Tube	1
9	O-Ring	1	25	Connector	1
10	O-Ring	1	26	"L" Screw	1
11	Seat	1	27	Seal	1
12	Adjusting Knob	1	28	Seal Nut	1
13	Washer	1	29	Fluid Inlet	1
13-1	Gasket	1	30	Pin	1
13-2	Gasket	1	31	E-Ring	1
14	Valve Set	1	32	Trigger	1
15	Spring	1			

9903-301

Apollo Sprayers International, Inc. ***TWO Year Limited Warranty***

Your ECO Series turbine system is **WARRANTED** by **APOLLO SPRAYERS INTERNATIONAL, INC.** for a total period of **TWO YEARS** on a **PRO-RATED** Basis (see schedule below) from the **ORIGINAL** date of purchase by the **ORIGINAL PURCHASER**. Proof of purchase to be included and all **SHIPPING CHARGES** to be pre-paid.

APOLLO SPRAYERS INTERNATIONAL, INC. upon examination of the machine/equipment will **replace or repair** at their discretion any defects in material or workmanship.

WARRANTY SCHEDULE

First Six Months.....	Parts NO CHARGE.....	Labor.....	NO CHARGE
Second Six Months.....	Parts NO CHARGE.....	Labor.....	CHARGED
Third Six Months.....	Parts 25% CHARGED.....	Labor.....	CHARGED
Final Six Months.....	Parts 50% CHARGED.....	Labor.....	CHARGED

Labor will be **CHARGED** at the current hourly rate, or specified Job Rate.

This **WARRANTY** does **NOT** include: miss-use, damage, neglect, alterations, disassembled equipment or modifications, lack of maintenance, cleaning, water damage to electrical parts and **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, it is limited to the duration of the express **Warranty**. No representative or person is authorized to extend this **Warranty** or to create for **APOLLO SPRAYERS INTERNATIONAL, INC.** any other liability in connection with the sale of any **APOLLO SPRAYERS product**. **APOLLO SPRAYERS INTERNATIONAL, INC.** 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 States do allow the exclusion of 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 State to State.

For warranty repairs inside the United States please call 888-900-4857 or outside the United States call, 760-727- 8300. All repairs must be accompanied by an RMA number from the factory. Please call first before sending any equipment back to the factory for repair. Any equipment returned without a proper RMA number will be refused.