

SpectraCoat™

*Powder Coating Systems
By Providing System Solutions, Inc.*

**Model: ES-Hobby
Operator's Manual**



**For Sales Information and Technical Support call or email
Powder Buy The Pound
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Specifications:

Item	Description
Input Power	120 VAC 60 Hz
Air Inlet	¼ inch NPT
Gun Output	30, 35, 40, 45 & 50 KV
Air Supply Pressure	10 – 30 PSI
Fuse	120 VAC 0.5A
Weight	6.5 Lbs

General Safety Rules

Warning!

Read and understand all Directions in this manual before using this system. This system uses high voltage. Improper use can cause electrical shock.

Electrical Safety

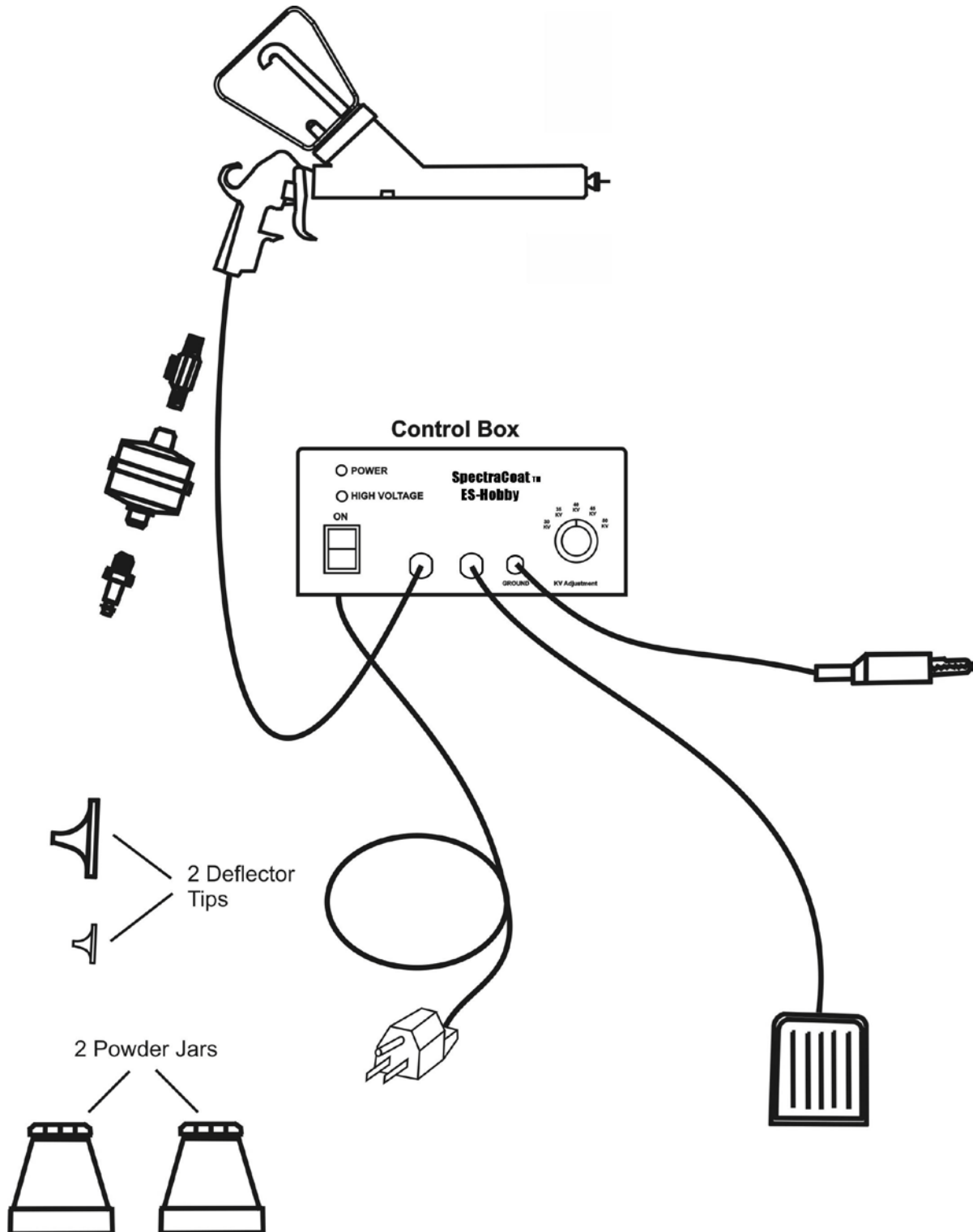
- This system must be plugged into a grounded electrical outlet. Never bypass the ground plug. The proper grounding of this unit is very important for its proper operation and to prevent electric shock.
- Operate this unit in a clean and dry work area.
- While spraying avoid touching the tip of the gun as this may cause a static discharge which could be painful.
- Never touch the tip of the gun to the part while coating.

General Safety

- Powder coating dust when airborne can ignite. Do not operate this unit near open flame.
- This system utilizes compressed air. Always use proper eye protection while operating.
- Always use a respirator or particle filter mask while operating.
- Use this system in a well ventilated area. It is best to use this system in a area such as a booth that has an air circulation and filtration system.

Unpacking

Carefully open the box and unpack the contents. Lay out the parts to the system and make sure all parts are present. The following picture shows what is included with the SpectraCoat™ ES-Hobby system. Please refer to the parts list and breakout picture at the end of this manual.



Setup and Operation

1. Connect the Moisture Separator (9) to the Spray Gun (2)
2. Remove the Powder Cup from the Spray Gun and fill the cup with coating powder up to 2 inches.
 - a. Place the cup with the open end up on a flat clean surface.
 - b. Using a funnel to pour the powder, add powder up to 2 inches.
 - c. Turn the Spray Gun upside down, as shown in the picture, and screw the Powder Cup onto the Spray Gun.



3. Adjust the Air Compressor's output air pressure to between 10-30 PSI. Fine tuning of the air pressure can be done with the Pressure Adjustment Valve at the Spray Gun handle.
4. Attach the Quick Adapter to the Moisture Separator.
5. Connect the air compressor's 1/4" air hose (not supplied) to the Quick Adapter.
6. Attach the appropriate Deflector Tip to the threaded Conductor Rod. While attaching the Deflector Tip, remember that the narrow end of the tip should be towards the gun when screwing it on.
7. Clip the Ground Clip to an area of the part which is not to be coated or to any rack which the part might be hanging from. This connection is very important to attract the charged powder to the part.
8. Turn the Control Box Power Switch to the ON Position.
9. Press the Spray Gun Trigger and the Foot Switch simultaneously and

check the spray pattern on a test part. The pattern can also be adjusted by use of the Regulating Screw: Loosen to expand the pattern, tighten to reduce the pattern size. When the Foot Switch is pressed the High Voltage Indicator Light should come on.

The Spray Gun Trigger controls the air and powder flow while the Foot Switch turns on the High Voltage Generator in the Control Box.

When spraying it is important to maintain a proper distance between the work piece to be coated and the tip of the Spray Gun. 8 inches is a good distance to use. It may be necessary to point the Spray Gun at different angles to get proper coverage of the work piece. When coating is complete the part should be covered with a dull opaque coat of powder.

!!!!!!WARNING!!!!!!

The Spray Gun Tip is still electrically charged for a short time after you release the Foot Pedal. Once you have finished spraying and have taken your foot off the Foot Pedal, touch the Conductor Rod tip to a ground source to discharge the tip. Do not touch the Conductor Rod tip without discharging or you could receive a Static Shock.

Curing the Coated Part.

!!!!!!Warning!!!!!!

The fumes produced during curing can be harmful. Do not breath them. Always wear a NIOSH approved respirator and safety goggles. Proper ventilation in the work area is important.

1. Preheat the curing oven to the correct temperature for the powder used. Refer to the powder supplier's specifications for temperature and curing times.
2. Place the coated part on the oven rack and cure for the correct time. Typically this will be approximately 15 minutes. Curing time is dependant on the size and mass of the part to be coated.
3. When curing is finished remove part and allow to cool.

Color Change and Cleaning

Color change and cleaning is basically the same operation. It is always a good idea to keep the SpectraCoat™ ES-Hobby system clean in between jobs. Any powder that is allowed to remain in the Powder Cup or the Spray Gun can be very difficult to clean out at a later time.

For this procedure you will need an air nozzle on a shop air line to blow any residual powder from the different places in the system as described below. Use

an air pressure of 80-100PSI (5-7 bar)for the cleaning process.

!!!Warning!!!

Never disassemble the gun further than what is described below as this may damage parts of the gun and void any warranties.

1. Shut off the main power switch.
2. Disconnect the air line from the Quick Adapter at the Spray Gun..
3. Remove the Deflector Tip from the Conductor Rod and blow off any residual powder. Remember to discharge the tip before removing it.
4. Turn the Spray Gun upside down as in the procedure for adding powder.
5. Unscrew the Powder Cup from the gun and empty any left over powder into the original powder container.
6. Blow out Powder Cup.
7. Blow off any residual powder from the Air/Powder Outlet Pipe and Air Input Pipe.
8. Blow air into the Air/Powder Outlet Pipe
9. Blow air into the Quick Adapter.
10. Blow air into the Charging Tube.

You are now ready to use another color or store the unit for future use.

Parts List

Part Identifier#	Description
1	Spray Gun Pipe
2	Spray Gun
3	Air/Powder Outlet Pipe
4	Powder Cup
5	Air Input Pipe
6	Trigger
7	Regulating Screw
8	Pressure Adjustment Valve
9	Moisture Separator
10	Quick Adapter
11	Control Box
12	Power Indicator Light
13	High Voltage Indicator Light
14	Power Switch
15	Ground Clip
16	Foot Switch
17	Fuse
18	Foot Switch Cable
19	Power Cord
20	Accessories
21	Deflector Tip Medium
22	Deflector Tip Large
23	Charging Tube
24	Deflector Tip Small
25	Conductor Rod
26	Ground Wire
27	High Voltage Wire

