

CB-501

OPERATION MANUAL



A PRODUCT SOLD BY



BUY RITE
FINISHING

4855 Alpha Drive

Hastings, NE 68901

888-647-9929

buyritefinishing.com

ColorBOARD

Congratulations on your selection of the Husker Finishing ColorBOARD color management system by Husker Finishing Equipment. We appreciate your purchase and think that you will be pleased with the performance of this equipment.

Before using this unit, thoroughly and carefully read each section to understand the proper operation of your ColorBOARD. Please be aware of the safety features as well as the limited warranty that is included with the ColorBOARD (separate from this manual). The operation manual should be read by all operators of the ColorBOARD and it should be stored in a convenient location near the unit for quick reference as needed.

Some of the main features of the ColorBOARD CB-501 color management system are listed below:

- High-end accurate gauges and connectors
- Flexible tubing and hoses
- Stainless steel face
- Air filtration system
- Accommodations for six different hoppers and two powder guns for each hopper.

Copyright © 2015 BUY RITE FINISHING

<u>Introduction</u>	<u>2</u>
<u>Contents</u>	<u>3</u>
<u>Product Description.....</u>	<u>4</u>
<u>Specifications.....</u>	<u>6</u>
<u>General Safety.....</u>	<u>8</u>
<u>Operation Guidelines.....</u>	<u>9</u>
<u>Maintenance</u>	<u>15</u>
<u>Service and Contact Information</u>	<u>15</u>

Available Models:

CB501 – 2.1

CB501 – 2.2

CB501 – 3.1

CB501 – 3.2

CB501 – 4.1

CB501 – 4.2

CB501 – 5.1

CB501 – 5.2

CB501 – 6.1

CB501 – 6.2

CB501 – PRO

Product Description:

The ColorBOARD is a color management system is designed for the small-mid level powder coating operation. It is ideal for projects that require multiple colors and quick change solutions. The CB-501 has been designed to accommodate a wide range of external components and is universal to most name brand accessories. Each CB-501 will allow two powder guns to spray up to six different colors. Multiple ColorBOARDS can be operated in a series for shops that require additional color capability.

Husker Finishing Equipment has added several proprietary components that come standard with the unit. These include the auxiliary blow down gun for cleaning purposes. Husker Finishing Equipment also offers many accessories and additional products that can be used with the ColorBOARD. These include the ColorPurge for quick hose cleaning and steel powder hoppers that range from 2 lbs -150 lbs and the air filter system to ensure the air clean and debris free. The ColorBOARD cart is also an option. These optional accessories are standard with the ColorBOARD Pro model.

Husker Finishing Equipment has added proprietary components which come standard with the unit:

- EZ Fit Hose Adaptors – allows for a secure connection of powder hose to the ColorBOARD

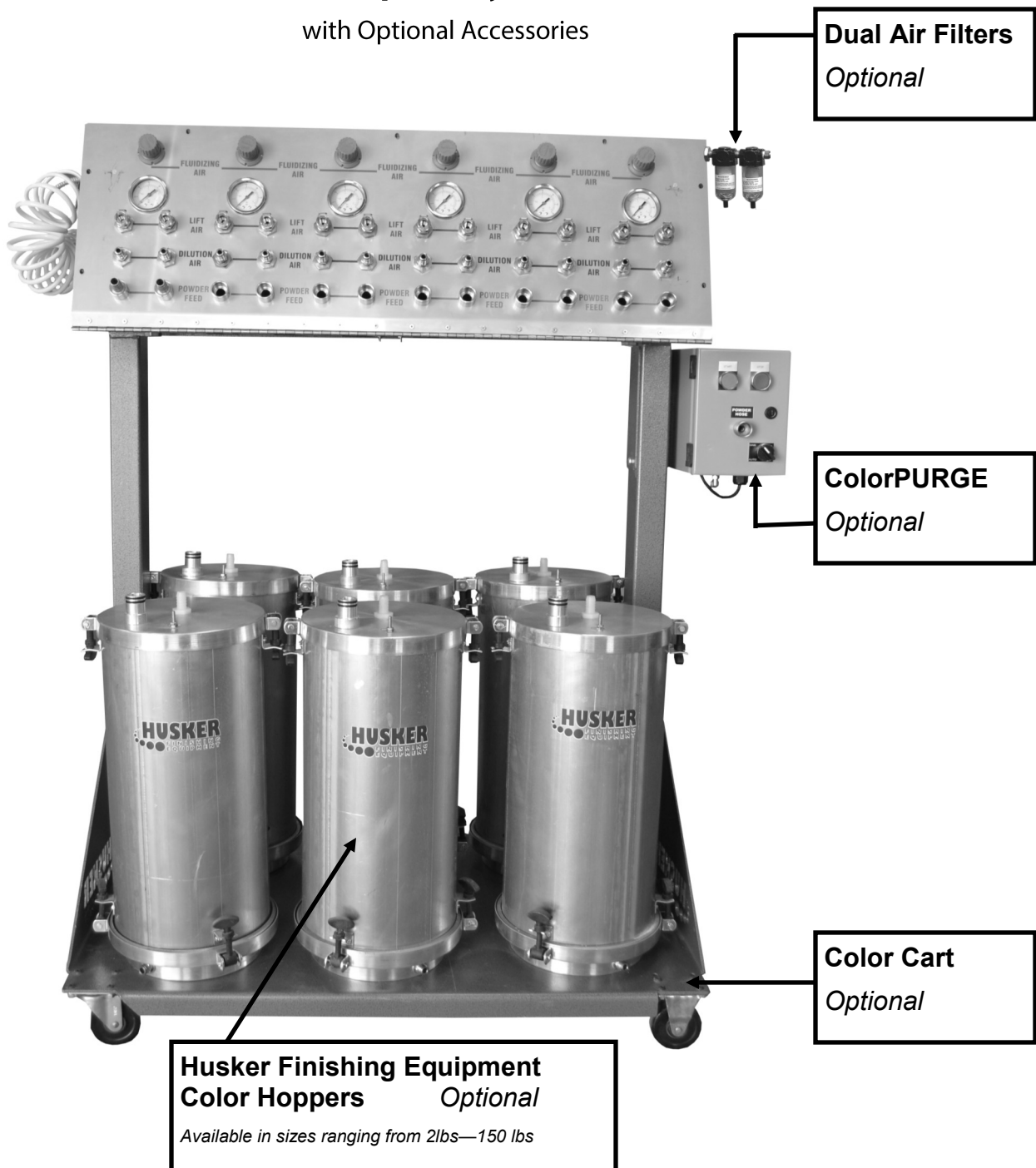
Husker Finishing Equipment also offers many accessories to be used with the ColorBOARD:

- A mobile cart that allows portability of the ColorBOARD and any options along with multiple hoppers
- A Point-of-Use desiccant air dryer to condition the air prior to being used by the ColorBOARD of any other accessories
- Dual Air Filters – to ensure that the incoming air is clean and free from debris
- Auto Purge—used between color changes for automatic cleaning of the powder hose
- A variety of powder hoppers that range from 2 lbs – 150 lbs

PRODUCT DESCRIPTION

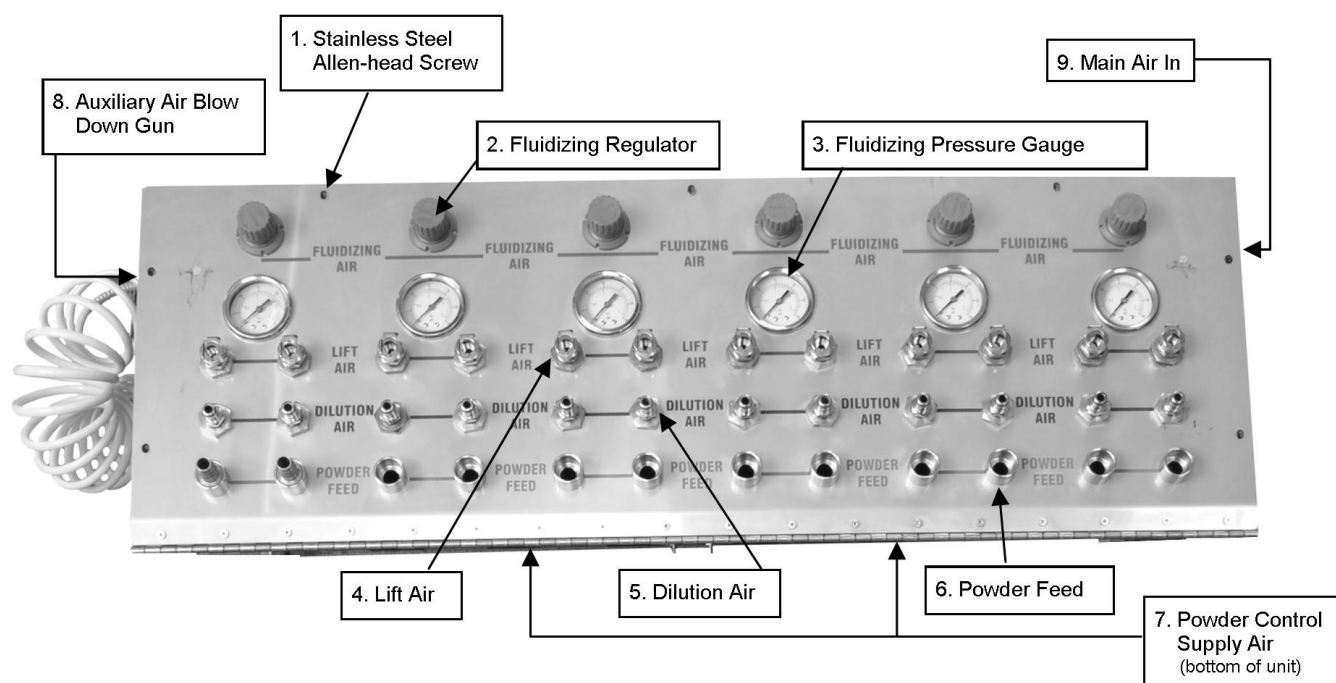
CB-501

Complete System with Optional Accessories



PRODUCT DESCRIPTION (con't)

CB-501



No.	Name	Function	Qty on Unit
1	Stainless Steel Allen-head screw	Secure stainless steel face plate to ColorBOARD cabinet	7
2	Fluidizing Regulator	Allows user to adjust fluidizing pressure	2-6
3	Fluidizing Pressure Gauge	Indicates to user the amount of fluidizing pressure	2-6
4	Lift Air*	Connects assigned control to designated color	2-12
5	Dilution Air*	Connects assigned control to designated color	2-12
6	Powder Feed - EZ Fit Hose Adapter	Connects powder hose from gun to the designated color	2-12
7	Powder Control Supply Air	Connects air to powder control (with internal shut off)	1-2
8	Auxiliary Air - Blow Down Gun	Allows user to clean parts, gun, unit and other components	1
9	Main Air - Compressed Air Inlet	Air for use through the ColorBOARD	1

* Refer to section 11-2 in the Instructions regarding Control Air from the ColorBOARD to the Powder Pump

Color Change Time	<i>Approximately 30 Seconds</i>
Weight	<i>50lbs—85lbs</i>
Dimensions	<i>36" Wide x 12" High x 12" Deep</i>
Voltage	<i>Standard 110 for use only with ColorPURGE option—see page for grounding instruction</i>
Mounting	<i>Wall or Cart</i>
Material	<i>Stainless Steel, Powder Coated Steel, Nickel Plated Brass, Aluminum and Plastic</i>
External Air Compressor Needed	<i>YES – Customer Supplied</i>
Operating Pressure	<i>Minimum 80 PSI @ 27 SCFM</i>
Incoming Air Quality	<i>Dry Air that is free from particulates, vapors and mist should be used</i>

ColorBOARD owners are responsible for making sure that the ColorBOARD is installed, operated, and serviced by qualified personnel. Qualified personnel are those who are trained to operate the unit.

Make sure all unit instruction and operation documentation including this instruction manual, is accessible to all persons operating or servicing the ColorBOARD.

Intended Use

Use of the ColorBOARD in ways other than those described in this manual may result in usage failure, injury to persons or damage to property.

Misuse of equipment may be the following:

- using incompatible supplies and materials
- making unapproved modifications
- using unit with damaged parts
- using unapproved auxiliary equipment

Make sure all equipment is suitable for the environment in which it is used. Any warranties or guarantees for the ColorBOARD will be voided if instructions are not followed.

The installation and use of the ColorBOARD must comply with all federal, state, and local codes.

Safe Use

To operate the ColorBOARD safely, please follow the following instructions:

- Do not operate or service the unit unless you are trained and qualified
- Do not use the ColorBOARD unless the stainless steel face plate is secured into place.
- Before adjusting or servicing the ColorBOARD, be sure to shut off the power to any external controls and/or disconnect.
- Comply with all safety guidelines for any materials, external controls or components used with the ColorBOARD. Follow the manufacturer's instructions for safe handling and use of materials, and use recommended personal protection devices.

To avoid a fire or explosion, follow these instructions.

- Do not smoke, weld, grind, or use open flames where flammable materials are being used or stored.
- Provide adequate ventilation to prevent dangerous concentrations of volatile materials or vapors. Refer to local codes or your material data sheets for guidance.
- Do not disconnect live electrical circuits while working with flammable materials. Shut off power at a disconnect switch first to prevent sparking.
- Clean, maintain, test, and repair equipment according to the instructions in your unit manual.
- Use only replacement parts that are designed for use with the ColorBOARD. Contact your Husker Finishing Equipment representative for parts information and advice.

Instructions:

Tools Needed (Customer Supplied):

1/8" Sized Allen Head driver (to be used for the seven screws on the Stainless Steel face plate)

1/4" Sized Allen Head driver (to be used only when changing the color or gun configuration of the ColorBOARD)

External Compressed Air Source

9.1 CONNECT GROUNDING WIRE FROM THE ColorBOARD TO EARTH GROUND

(There was a GREEN # 10 ga wire provided with your ColorBOARD. This wire has a round eyelet on one end and an alligator clamp on the other end.)

Connect the round eyelet to either of the two copper studs marked "GROUND". This will be on the outside of the ColorBOARD and is located on the bottom of the cabinet. It doesn't matter which copper stud you choose, as they both connect to the ColorBOARD's main grounding system.

Connect the other end of this same wire to a TRUE EARTH ground, such as a grounding rod or water pipe located inside your building.

Note: For more information on which location will work best for your earth ground connection, refer to your local electrical code.

9.2 CONNECT GROUNDING WIRE FROM THE ColorBOARD TO POWDER COATING CONTROL(S)

Using the grounding wire that was supplied with your powder coating control, connect one end to either of the copper studs marked "GROUND" (#?). This will be on the outside of the ColorBOARD and is located on the bottom of the cabinet. It doesn't matter which copper stud you choose, as they both connect to the ColorBOARD's main grounding system.

Connect the other end of that same grounding wire to the designated grounding location on your powder coating control (this will vary depending on the manufacturer of your powder coating control. If there are any questions, please contact the manufacturer of the powder coating control unit).

REPEAT THESE STEPS IF YOUR ColorBOARD IS EQUIPPED TO HANDLE TWO POWDER COATING CONTROLS:

10.1 CONNECT GROUNDING WIRES FROM THE ColorBOARD TO EACH POWDER COATING HOPPER (The 6' long GREEN #14 ga wires provided will be used for this section. The number of wires provided match the number of color stations that your ColorBOARD was ordered with. Each wire has a round eyelet on one end and has been left bare on the other end.)

Remove the seven Allen-Head screws located around the perimeter of the ColorBOARD's stainless-steel face.

Drop the stainless steel face of the ColorBOARD down and allow it to hang by the chains, this will allow you access to the inside fittings of the ColorBOARD.

NOTE: Do not close the face of the ColorBOARD as most of the tasks below will also require access to the inside fittings.

(Repeat the following steps for each color station/hopper that is being used)

Insert the bare end of the GREEN #14ga grounding wire into the Central Grounding Bar. Tighten the screw until the wire is firmly secured (any open location on the Grounding Bar will work). The Grounding Bar is on the inside of the ColorBOARD and is located at the bottom of the cabinet.

Route the other end of this same grounding wire (the end with the round eyelet) through one of the six square holes located on the bottom of the ColorBOARD's cabinet.

Using the round eyelet, connect it to the grounding lug on the hopper being careful to allow for an additional 12" to compensate for opening and closing of the ColorBOARD face in case of maintenance.

NOTE: If HUSKER FINISHING hoppers are being used, the GROUNDING STUD is located on the lid of the hopper and is marked by a "green" decal. Locations may vary so please contact the manufacturer of your hopper.

11.1 ROUTING SUPPLY AIR FROM ColorBOARD TO POWDER COATING CONTROLS

Using the air tubing that was supplied with your powder coating control, connect one end to the designated air inlet on the powder coating control (this will vary depending on manufacturer of powder coating control. If there are any questions, please contact the manufacturer of the powder coating control unit).

Connect the other end of that same air tubing to the push-to-connect fitting marked "Powder Control Supply Air." This fitting will be on the outside of the ColorBOARD and is located on the bottom of the cabinet.

Open the air valve located on the inside of the ColorBOARD and to allow air to flow into your powder coating control. Verify that the valve is in the OPEN position by rotating the handle PARALLEL with the flow of air. The ColorBOARD will operate on 80-110 PSI and a minimum of 7 CFM of compressed air. However, you may want to increase the CFM depending on external pneumatic loads placed on the system (e.g. number of powder guns, amount of fluidizing air, type and frequency of gun purging, etc.)

11.2 CONNECT FLUIDIZING AIR FROM ColorBOARD TO POWDER HOPPERS

(The following steps will need to be repeated for each hopper being used with your ColorBOARD)

Using the correct sized air tubing for your style of hopper. Connect one end to the outlet side of the fluidizing regulator on the face of the ColorBOARD.

Note: Outlet side of the fluidizing regulator is located on the inside of the ColorBOARD and will be the only available fitting.

Route the air tubing through any of the square holes in the bottom of the ColorBOARD.

Note: It is best to route any hoses, tubing and wires for each color/hopper through the same holes. This will keep the unit organized.

Connect the other end of this same air tubing to the fluidizing fitting on the hopper being used. Be careful to allow for an additional 12" when doing this to compensate for opening and closing of the ColorBOARD face in case of maintenance.

NOTE: The fluidizing fitting is typically located towards the bottom of your hopper. If there are any questions please contact the manufacturer of the hopper.

12.1 CONNECT CONTROL AIR FROM THE ColorBOARD TO THE POWDER PUMP

(The following steps will need to be repeated for each powder pump being used with your ColorBOARD).

The control air that operates the powder injection pump is often referred to by different names (flow rate/atomization, conveying/dosing, etc.) but will always control the same function of the powder flow. The "Flow Rate" or "Conveying" air controls the amount of powder that is lifted up from the feed hopper and into the powder hose. On the ColorBOARD we will refer to this as LIFT AIR. The "Atomization" or "Dosing" air dilutes the powder as it exits the pump and helps to propel it down the powder hose and to the gun. On the ColorBOARD we will refer to this as DILUTION AIR.

With the ColorBOARD face still open, attach one end of your air tubing to the fitting marked "LIFT AIR" This will be located on the inside of the ColorBOARD.

NOTE: The size of air tubing used here will depend on the model of your powder control and pump. If there are any questions, please contact the manufacturer of the powder pump.

Route the air tubing through any of the square holes in the bottom of the ColorBOARD.

NOTE: It is best to route any hoses, tubing and wires for each color/hopper through the same holes. This will keep the unit organized.

Connect the other end of the air tubing to the fitting marked FLOW RATE or CONVEYING AIR on the powder injection pump. Be careful to allow for an additional 12" when doing this to compensate for opening and closing of the ColorBOARD face in case of maintenance.

NOTE: The Powder Pump is typically located on the top of your hopper but may vary. If there are any questions please contact the manufacturer of the hopper.

Using a second piece of your air tubing, attach one end to the fitting marked "DILUTION AIR." This will be located on the inside of the ColorBOARD.

NOTE: The size of air tubing that is used here will depend on the model of your powder control and powder pump. If there are any questions, please contact the manufacturer of the powder pump.

Route the air tubing through any of the square holes in the bottom of the ColorBOARD.

NOTE: It is best to route any hoses, tubing and wires for each color/hopper through the same holes. This will keep the unit organized.

Connect the other end of the air tubing to the fitting marked ATOMIZATION or DOSING AIR on the powder injection pump. Be careful to allow for an additional 12" when doing this to compensate for opening and closing of the ColorBOARD face in case of maintenance.

NOTE: The Powder Pump is typically located on the top of your hopper but may vary. If there are any questions please contact the manufacturer of the hopper.

13.1 CONNECT POWDER HOSE FROM THE ColorBOARD TO THE POWDER PUMP

(The following steps will need to be repeated for each hopper being used with your ColorBOARD)

With the ColorBOARD face still open, attach one end of the powder hose to the inside of the EZ FIT Hose Adapter.

Route the Powder Hose through any of the square holes in the bottom of the ColorBOARD .

Note: It is best to route any hoses, tubing and wires for each color/hopper through the same holes. This will keep the unit organized.

Connect the other end of the powder hose to the hose connector on the powder pump. Be careful to allow for an additional 12" when doing this to compensate for opening and closing of the ColorBOARD face in case of maintenance.

NOTE: The Powder Pump is typically located on the top of your hopper, but may vary. If there are any questions please contact the manufacturer of the powder pump.

Close the stainless steel face of the ColorBOARD, being careful not to pinch any hoses, tubing or wires. Secure the stainless steel face using the seven Allen-head screws supplied with your ColorBOARD.

13.2 CONNECT CONTROL AIR FROM YOUR POWDER CONTROL(S) TO THE ColorBOARD FACE

There are two separate tubes coming from the back of your powder coating control. These send air to the powder pump to control the amount of powder that gets sent out to the gun. These are often referred to by different names (flow rate/atomization, conveying/dosing) but will always control the same function of the powder flow. The "flow rate" or "conveying" air controls the amount of powder that is lifted up from the feed hopper and into the powder hose. On the ColorBOARD we refer to this as LIFT AIR. The "atomization" or "dosing" air dilutes the powder as it exists the pump and helps to propel it down the powder hose to the gun. On the ColorBOARD we refer to this as DILUTION AIR.

In this section you will use the quick disconnects found in the accessories bag that was sent with your ColorBOARD.

Using the air tubing that was supplied with your powder coating control, connect one end to the female quick disconnect that was in the accessories bag supplied with your ColorBOARD. Connect the other end of this air tubing into the fitting used for "atomization" or "dosing" air which is found on the back of your powder coating control. Be careful to allow for 12" of additional slack when doing this to compensate for switching of the air tubes during color changes.

Using the air tubing that was supplied with your powder coating control, connect one end to the male quick disconnect that was in the accessories bag supplied with your ColorBOARD. Connect the other end of this air tubing into the fitting used for "flow rate" or "conveying" air which is found on the back of your powder coating control. Be careful to allow for 12" of additional slack when doing this to compensate for switching of the air tubes during color changes.

14.1 BRINGING COMPRESSED AIR TO THE ColorBOARD

Close the ColorBOARD face and re-install the seven Allen-head screws located around the perimeter of the ColorBOARD's stainless-steel face. Using the powder hose that was supplied with your powder coating gun, connect one end of the EZ fit hose barb that was in the accessory bag supplied with your ColorBOARD.

Note: The two o-rings should be exposed at this point for a good fit into the EZ fit hose adapter.

Connect the other end of this powder hose into your powder coating gun. Be careful to use a piece of hose long enough to allow for full extension of your powder coating gun.

14.2 BRINGING COMPRESSED AIR TO THE ColorBOARD (fitting provided)

Connect an air hose from your external supply to the main air input chuck located on the upper right side of the unit.

The ColorBOARD will operate on 80-110 PSI and a minimum of 7 CFM. However, you may want to increase the CFM depending on external pneumatic loads placed on the system (e.g. number of powder guns, amount of fluidizing air, type and frequency of gun purging, etc.)

14.3 FILLING THE HOPPER(S) WITH POWDER

Turn the fluidizing regulator on each of the air regulators counter clockwise until the fluidizing gauge reaches "0." This will verify that each hopper will not over-fluidize and spill over when powder is introduced.

Put powder into each hopper. Pay close attention to not to over-fill the hopper, as this will cause the fluidized powder to spill. You should not fill the hopper over 2/3 full before fluidizing air is introduced. This could cause Powder to escape out of the vent and around the lid when fluidizing air is introduced.

NOTE: PSI variances will occur and adjustments will need to be made on a project by project basis

Final Steps

Be sure the ColorBOARD is within close proximity to the project and proper ventilation is in use. The ColorBOARD is now ready for use. Husker Finishing Equipment suggests testing your powder coating process on a sample of the same material to be used in the project.

CLEANING

DAILY

Check all ground connections thoroughly. Ungrounded equipment and parts may accumulate a charge that could arc and cause a fire or explosion. Failure to observe this warning could cause serious injury.

NOTE: Ungrounded or poorly grounded parts could affect transfer efficiency, electrostatic wrap, and the quality of the finish.

Check power and gun cable connections.

NOTE: Poor connections could affect consistency of power to the optional ColorPURGE unit or the powder coating controls. Poor gun cable connections could affect the transfer efficiency, electrostatic wrap, and the quality of the finish.

Use the auxiliary air supply to blow powder and dust from the ColorBOARD then wipe off the ColorBOARD cabinet with a dry, clean cloth.

Carefully remove fused powder from any parts with a wooden, plastic or similar tool.

NOTE: Do not use tools that will damage the path of the powder. Powder will build up and impact fusion can become present on any scratches, this could reduce the flow.

WEEKLY

Clean the internal cabinet of the ColorBOARD.

Check hoses and tubing and replace when necessary.

Check face gasket around ColorBOARD cabinet. This provides a seal between the unit and the face plate.

Make sure that the air being supplied is clean and dry.

NOTE: Regular maintenance is required on the air dryer and filters. This will ensure that clean and dry air is being used throughout the ColorBOARD and any auxiliary accessories.

Service and Contact Information

Buy Rite Finishing
4855 Alpha Drive
Hastings, NE 68901
info@buyritefinishing.com
www.buyritefinishing.com