



## Encore™ HD Mobile Powder Coating System

## Installation Guide Part Number 1608259-03

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Issued: 05/2021

### ENCORE HD MOBILE SYSTEM COMPONENTS

#### Components Required For Installation

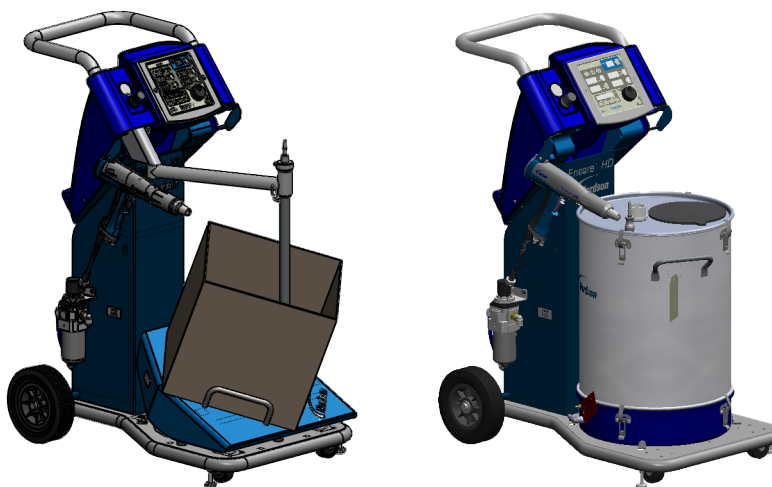
Preassembled Mobile System  
Encore® HD Spray Gun with Cable  
4-mm Clear Air Tubing  
6-mm Blue Air Tubing  
8-mm Powder Hose  
12-mm Blue Air Tubing  
Tube Cutters  
Barbed Fitting (Pickup Tube)  
Spiral Wrapping

#### Tools Required for Installation

Scissors  
Tube Cutters (included)  
Screwdriver  
Pliers  
Wrench

#### Optional Components

Rail Mount Bracket  
Grounding Block  
Adapter



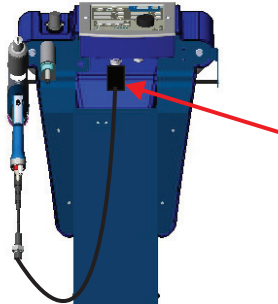
Follow the safety, operation, and maintenance instructions in the product manual.  
Refer to the Encore HD manual 1605707 for additional information.



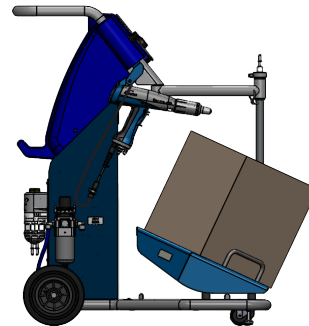
## INSTALLATION PROCEDURES

### 1 Install the spray gun cable on the manual system.

1. Connect the spray gun cable to the connector on the back of the controller.



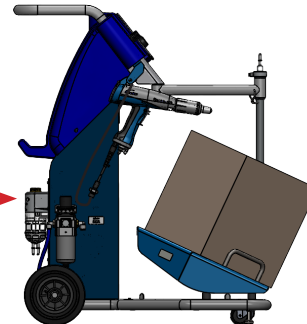
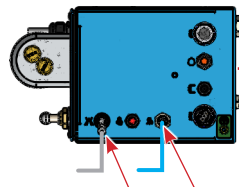
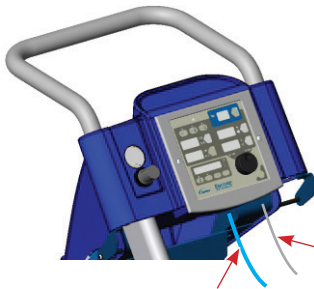
View 1



View 2

### 2 Install the 4-mm clear and 6-mm blue tubing to the top of the pump control unit.

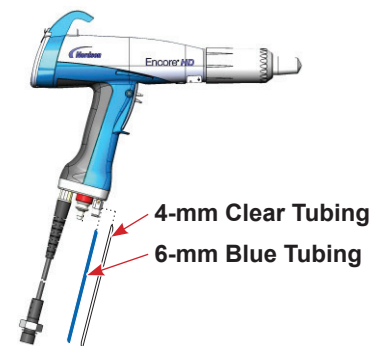
1. Feed the tubing through the front opening at the top of the tower.
2. Connect the tubing to the appropriate fitting on the top of the unit.



### 3 Install the tubing from the pump control unit to the spray gun.

#### **Tool Required: tube cutters**

1. Measure the tubing the same length as the spray gun cable (typically 6 m).
2. Cut all the tubing straight across to create a 90-degree angle.
3. Push the tubing into the connections located at the bottom of the spray gun.



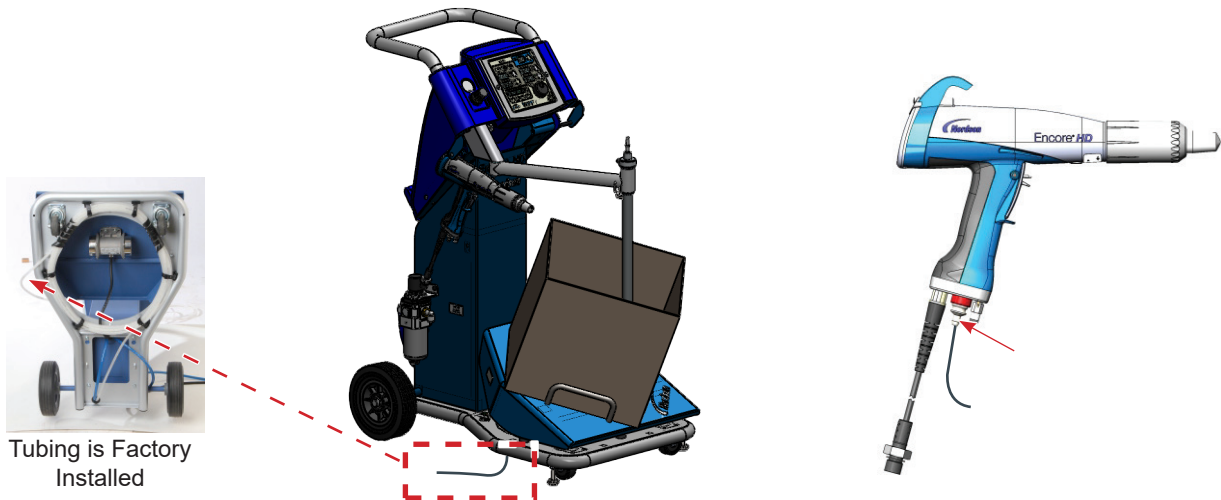
## INSTALLATION PROCEDURES CONT...

### 4 Install the powder tubing from the spray gun to the pump.

**Tool Required: scissors**

1. Connect the powder tubing from the pump to the spray gun adapter.
2. Dress out the air tubing, powder hose, and spray gun adapter using a cut piece of black spiral wrapping (step not shown).

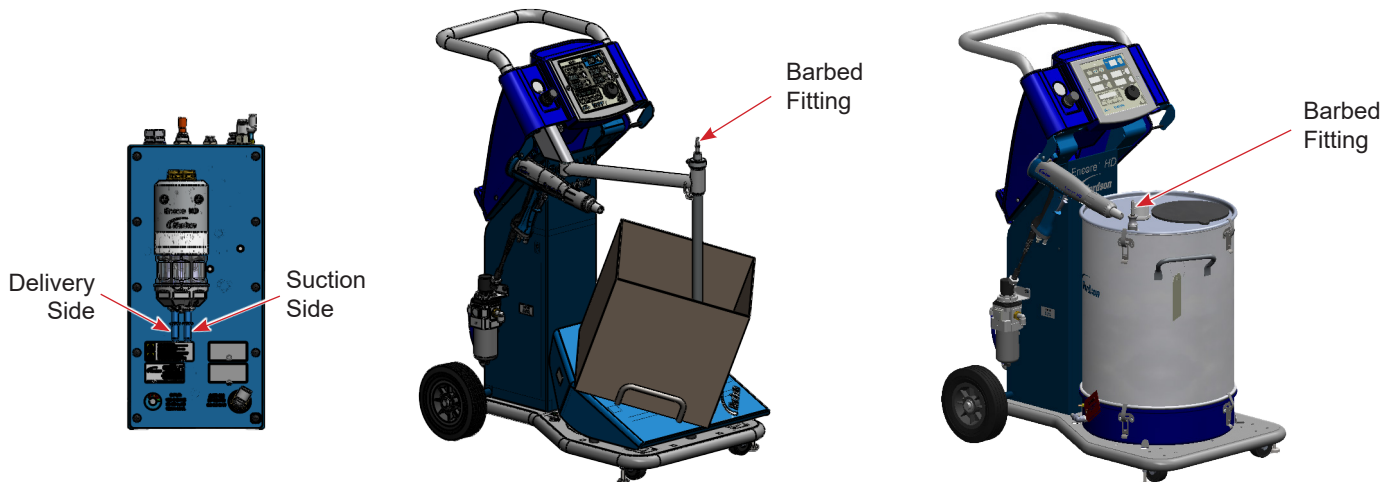
**NOTE:** Do not pinch powder tubing.



### 5 Connect the powder tubing from the pump to the pickup tube.

**Tool Required: scissors**

1. Connect the end of the powder tubing to the front-right (suction side) barbed fitting on the pump.
2. Route the tubing through the tower to the top of the pickup tube.
3. Connect the tubing to the barbed fitting on the top of the pickup tube.
4. Dress out the pickup tubing using a cut piece of black spiral wrapping.



## INSTALLATION PROCEDURES CONT...

### 6 *HOPPER VERSION ONLY*

**Connect the vent hose to the hopper using the provided hose clamp.**

***Tool Required: screwdriver***



### 7 **Connect the ground cable attached to the pump control unit ground stud to a true earth ground.**

### 8 **Connect the main air and input power to begin operation.**

Green/Yellow = Ground/Earthing

Brown = L1/Hot

Blue = L2/Neutral



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## Encore™ HD Mobile Quick Tips

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### POSSIBLE SITUATION: INCONSISTENT DELIVERY TO THE SPRAY GUN

- ✓ Verify that the suction line is as short as possible (12 feet long or less).
- ✓ Verify that the hose is routed correctly and horizontally. Utilize the clips beneath the mobile system.
- ✓ Tighten all connections to eliminate potential air leaks.
- ✓ Check and adjust the assist air up or down as necessary. Refer to the system manual for specifications.
- ✓ Check for proper fluidization. Proper fluidization should resemble a “low simmer” or laterally-moving powder with no bubbles. Fluidization can appear differently depending on the type of powder used.

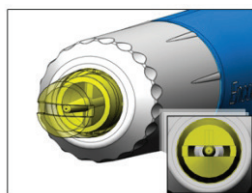
**NOTE:** If proper fluidization is difficult to achieve, there may be an issue with the material. For a potential temporary resolution, set the pump control to fast-flow mode.

If the situation continues, see the system manual to perform a vacuum test on the pump. Consult Nordson technical support if the situation continues.

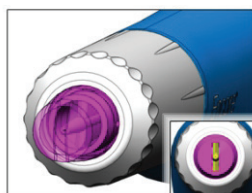


### POSSIBLE SITUATION: INCONSISTENT SPRAY PATTERN

- ✓ Verify that the nozzle and the electrode assembly “bridge” are parallel to each other.



INCORRECT



CORRECT

- ✓ Check if the electrode air wash is too high. Adjust the needle valve on the pump control unit.
- ✓ Check if the pattern air is too high or low. Adjust the pattern air on the system controller.

If the situation continues, consult the system manual or Nordson technical support.

Follow the safety, operation, and maintenance instructions in the product manual.  
Refer to the Encore HD manual 1605707 for additional information.



## MAINTENANCE CHECKS

### Cleaning and Maintenance

**At the end of each shift, perform a color change and inspect the nozzle and electrode assembly for signs of wear or impact fusion.**

- 1** Remove the suction line from the pickup tube and point it towards the powder collector.
- 2** Point the spray gun towards the powder collector.
- 3** Press the color change button on the controller and press enter.
- 4** Once the color change is complete, remove the nozzle and inspect for wear or impact fusion.
- 5** Inspect the pinch valves by looking at the clear block on the pump. If powder is present around the pinch valves, pump maintenance is required.

### Shutdown

**After performing the cleaning and maintenance of the pump, the system can be shut down by pressing the standby button on the system controller.**

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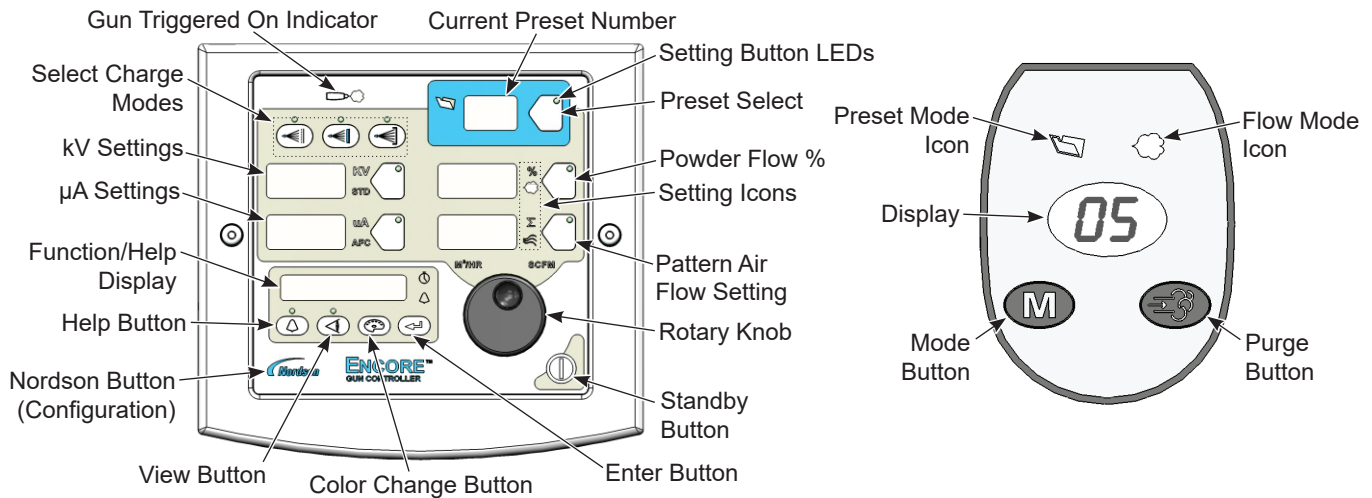
# Encore™ HD System Controller and Spray Gun Operation

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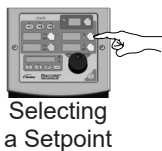
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### SYSTEM CONTROLLER AND SPRAY GUN DISPLAY



#### Frequently Used Buttons

-  Standby: Shuts off controller interface and spray gun during operation
-  Enter: Activates selected function or setting.
-  Help: Light will display if a problem occurs. Rotate knob to scroll through the last five codes. CLR + Enter will clear the codes.
-  View: Displays assist air setting (AA), fast-flow setting (FF), gun controller software (GC), gun display module software (DD), flow module software (FL) and hardware version for the main control board (HD).
-  Rotary Knob: Adjusts displayed values up or down.


























Selecting a Setpoint



Changing a Setpoint

#### Frequently Used Settings

- Assist Air =  +  +  + 
- Fast Flow =  +  +  + 
- kV Voltage =  +  + 
- μA Control =  +  + 
- Powder Flow % =  +  + 
- Pattern Air Flow =  +  + 
- Presets =  +  + 

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## SYSTEM CONTROLLER FUNCTION CODES AND VALVES

Code	Function Name	Function Value	Code	Function Name	Function Value
F00	Gun Type	00= Encore XT/HD 02= Robot	F18	Pump Type	00= Venturi 01= HDLV 02= COD
F01	Fluidizing	00= Hopper 01= Box 02= Disable	F19	Control Type	00= Local 01= External
F02	Display Units	00= SCFM 01= M3/HR	F20	Gun Number	<i>*See manual for additional values</i>
F03	Electrostatic Control	00= Custom 01= Classic	F21	Maintenance Timer, Pump	00= View 01= Set 02= Reset <i>*See manual for additional values</i>
F04	Powder Flow Control		F22	Purge	<i>*See manual for additional values</i>
F05	Keypad Lockout	00= Unlocked 04= Reset Password <i>*See manual for additional values</i>	F25	Pattern Air Delay	0.00-5.00
F06	Vibratory Box Delay Off	00-90 Seconds	F26	Soft Siphon	1-10 Sec
F07	Maintenance Timer, Gun	<i>*See manual for additional values</i>	F27	Soft Gun	1-10 Sec
F08	Setting Trigger Function	<i>*See manual for additional values</i>	F28	Pulse ON	0.1-0.95 Sec
F09	Help Codes	00= Enable 01= Disable	F29	Pulse OFF	0.1-0.95 Sec
F10	Zero Reset (Flow)	<i>*See manual for additional values</i>	F30	Siphon Pulses	1-99
F11	Gun Display Errors	00= Flash 01= Off	F31	Gun Pulses	1-99
F12	uA Lower Limit	<i>*See manual for additional values</i>	F32	Powder Pre-Load	<i>*See manual for additional values</i>
F13	uA Upper Limit	<i>*See manual for additional values</i>	F33	Manifold Purge	0-10 Sec
F14	Total Hours	00= Gun Total Hours 01= Pump Total Hours	F34	Conveyance Air Constant A	<i>*Constant should match sticker on manifold</i>
F15	Save/Restore/Reset	00= Save 01= Restore 02= Reset	F35	Conveyance Air Constant C	<i>*Constant should match sticker on manifold</i>
F16	Gun Display Brightness	00= Low 01= Medium 02= Maximum	F36	Pattern Air Constant A	<i>*Constant should match sticker on manifold</i>
F17	Number of Presets	<i>*See manual for additional values</i>	F37	Pattern Air Constant C	<i>*Constant should match sticker on manifold</i>



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