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<td>05</td>
<td>09/2014</td>
<td>Re-zero procedure revised</td>
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<td>06</td>
<td>12/2014</td>
<td>New powder inlet tube; 3mm and 4mm nozzles to ship with gun</td>
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<td>10/2015</td>
<td>Revised equipment labels and parts</td>
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<td>08</td>
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<td>Added cleaning procedure</td>
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<tr>
<td>09</td>
<td>09/16</td>
<td>Nozzle part number change and positive power supply added</td>
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<tr>
<td>10</td>
<td>03/18</td>
<td>Added 1083205, Deflector to parts list and some callout and nomenclature changes</td>
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<td>Updated system setup images, updated certification label</td>
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Section 1
Safety

Introduction
Read and follow these safety instructions. Task- and equipment-specific warnings, cautions, and instructions are included in equipment documentation where appropriate.

Make sure all equipment documentation, including these instructions, is accessible to all persons operating or servicing equipment.

Qualified Personnel
Equipment owners are responsible for making sure that Nordson equipment is installed, operated, and serviced by qualified personnel. Qualified personnel are those employees or contractors who are trained to safely perform their assigned tasks. They are familiar with all relevant safety rules and regulations and are physically capable of performing their assigned tasks.

Intended Use
Use of Nordson equipment in ways other than those described in the documentation supplied with the equipment may result in injury to persons or damage to property.

Some examples of unintended use of equipment include

• using incompatible materials
• making unauthorized modifications
• removing or bypassing safety guards or interlocks
• using incompatible or damaged parts
• using unapproved auxiliary equipment
• operating equipment in excess of maximum ratings

Regulations and Approvals
Make sure all equipment is rated and approved for the environment in which it is used. Any approvals obtained for Nordson equipment will be voided if instructions for installation, operation, and service are not followed.

All phases of equipment installation must comply with all federal, state, and local codes.
Personal Safety

To prevent injury follow these instructions.

- Do not operate or service equipment unless you are qualified.
- Do not operate equipment unless safety guards, doors, or covers are intact and automatic interlocks are operating properly. Do not bypass or disarm any safety devices.
- Keep clear of moving equipment. Before adjusting or servicing any moving equipment, shut off the power supply and wait until the equipment comes to a complete stop. Lock out power and secure the equipment to prevent unexpected movement.
- Relieve (bleed off) hydraulic and pneumatic pressure before adjusting or servicing pressurized systems or components. Disconnect, lock out, and tag switches before servicing electrical equipment.
- Obtain and read Safety Data Sheets (SDS) for all materials used. Follow the manufacturer’s instructions for safe handling and use of materials, and use recommended personal protection devices.
- To prevent injury, be aware of less-obvious dangers in the workplace that often cannot be completely eliminated, such as hot surfaces, sharp edges, energized electrical circuits, and moving parts that cannot be enclosed or otherwise guarded for practical reasons.

Fire Safety

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 SDS for guidance.
- Do not disconnect live electrical circuits while working with flammable materials. Shut off power at a disconnect switch first to prevent sparking.
- Know where emergency stop buttons, shutoff valves, and fire extinguishers are located. If a fire starts in a spray booth, immediately shut off the spray system and exhaust fans.
- Clean, maintain, test, and repair equipment according to the instructions in your equipment documentation.
- Use only replacement parts that are designed for use with original equipment. Contact your Nordson representative for parts information and advice.
Grounding

**WARNING:** Operating faulty electrostatic equipment is hazardous and can cause electrocution, fire, or explosion. Make resistance checks part of your periodic maintenance program. If you receive even a slight electrical shock or notice static sparking or arcing, shut down all electrical or electrostatic equipment immediately. Do not restart the equipment until the problem has been identified and corrected.

Grounding inside and around the booth openings must comply with NFPA requirements for Class II, Division 1 or 2 Hazardous Locations. Refer to NFPA 33, NFPA 70 (NEC articles 500, 502, and 516), and NFPA 77, latest conditions.

- All electrically conductive objects in the spray areas shall be electrically connected to ground with a resistance of not more than 1 megohm as measured with an instrument that applies at least 500 volts to the circuit being evaluated.
- Equipment to be grounded includes, but is not limited to, the floor of the spray area, operator platforms, hoppers, photoeye supports, and blow-off nozzles. Personnel working in the spray area must be grounded.
- There is a possible ignition potential from the charged human body. Personnel standing on a painted surface, such as an operator platform, or wearing non-conductive shoes, are not grounded. Personnel must wear shoes with conductive soles or use a ground strap to maintain a connection to ground when working with or around electrostatic equipment.
- Operators must maintain skin-to-handle contact between their hand and the gun handle to prevent shocks while operating manual electrostatic spray guns. If gloves must be worn, cut away the palm or fingers, wear electrically conductive gloves, or wear a grounding strap connected to the gun handle or other true earth ground.
- Shut off electrostatic power supplies and ground gun electrodes before making adjustments or cleaning powder spray guns.
- Connect all disconnected equipment, ground cables, and wires after servicing equipment.

**Action in the Event of a Malfunction**

If a system or any equipment in a system malfunctions, shut off the system immediately and perform the following steps:

- Disconnect and lock out electrical power. Close pneumatic shutoff valves and relieve pressures.
- Identify the reason for the malfunction and correct it before restarting the equipment.

**Disposal**

Dispose of equipment and materials used in operation and servicing according to local codes.
Introduction

See Figure 2-1. This manual covers the Encore® HD manual powder spray gun with 6 meter power cable and tubing.

The Encore HD manual powder spray gun should be used with the Encore HD manual controller, which provides electrostatic voltage control, electrode air-wash air, and powder pump air. It is compatible with the following systems:

- Encore HD Mobile Systems
- Encore HD Manual Wall or Rail Mount Systems
- Encore Single and Dual Stand Alone
- Encore Color-on-Demand® Systems
- ColorMax® Powder Coating Systems
- Prodigy™ Dual Pump HDLV® Systems

Figure 2-1  Encore HD Manual Powder Spray Gun

Flat spray nozzles with 3-mm and 4-mm slots are shipped with the gun, as well as a conical nozzle kit that contains a conical nozzle, a 26-mm deflector and a conical electrode holder. Use the conical nozzle kit to convert from flat spray to conical spray applications.
Optional equipment is available for the Encore HD manual spray gun including the following:

- Additional flat, conical and cross-cut nozzles options
- 6-meter cable extension
- 150 and 300-mm lance extensions
- Pattern adjuster for use with lance extensions
- Ion collector

See Options section beginning on page 7-4 for information on additional options.

### Specifications

<table>
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<th>Model: Encore Applicator</th>
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<td>Hazardous Location Rating for Applicator:</td>
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<td>Dust Ingress Protection:</td>
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### Equipment Labels

**Applicator Certification Label**

![Label Image]

1603105–02
Section 3
Setup

System Connections

WARNING: This diagram does not show system grounds. All conductive equipment in the spray area must be connected to a true earth ground.

Figure 3-1 System Diagram (Common System Equipment Shown)
Spray Gun Installation

See Figures 3-1 and 3-2 for gun connection illustrations.

1. Connect the 6-mm pattern air tubing to the quick-disconnect fitting (1) in the bottom of the gun handle. Connect the other end to the pattern air tubing on the fitting located on the pump control unit.

2. Connect the 4-mm clear electrode air wash tubing to the barbed fitting (2) in the bottom of the gun handle. Connect the other end to the electrode air wash tubing on the 90° flow control fitting on top of the pump control unit.

3. Seat the O-rings (4) onto the barbed hose adapter (3). Push the barbed end of the hose adapter into the end of the powder hose, then plug the adapter into the powder inlet tube (5) in the bottom of the spray gun handle.

4. Connect the gun cable (6) to the gun connection on the back of the Encore HD manual system controller.

5. Use the sections of black spiral wrap supplied with the system to bundle together the spray gun cable, all air tubing, and powder hose. Take care not to smash, squish, kink, bind, or deform the powder tubing.

![Spray Gun Connections Diagram]

Figure 3-2  Spray Gun Connections

1. Quick disconnect
2. Barbed fitting
3. Barbed hose adapter
4. O-rings
5. Powder inlet tube
6. Gun cable
Section 4
Operation

WARNING: Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

WARNING: This equipment can be dangerous unless it is used accordance with the rules laid down in this manual.

WARNING: All electrically conductive equipment in the spray area must be grounded. Ungrounded or poorly grounded equipment can store an electrostatic charge which can give personnel a severe shock or arc and cause a fire or explosion.

European Union, ATEX, Special Conditions for Safe Use

1. The Encore HD manual applicator shall only be used with the associated Encore XT/HD interface control unit and Encore HD controller power unit, over the ambient temperature range of +15 °C to +40 °C.

2. Equipment may only be used in areas of low impact risk.

3. Caution should be taken when cleaning plastic surfaces of the Encore controller and interface. There is a potential for static electricity build up on these components.
System Operation

This manual includes information on the Encore HD Manual Powder Spray Gun. Refer to appropriate system, controller and control panel manuals for information on system components.

Spray Gun Operation

The spray gun interface and settings trigger allow you to change the preset or the powder flow settings, or purge the gun as needed, without using the controller interface.

Changing Presets with the Settings Trigger

1. See Figure 4-3. Release the spray trigger. Presets cannot be changed while the gun is triggered on.

2. Press and hold the Mode button until the Preset Mode icon is lit. The display shows the current preset number.

3. Push the settings trigger up or down until the desired preset number is displayed on the spray gun interface.

   NOTE: Unprogrammed preset numbers (presets where all setpoints are zero) are automatically skipped. Refer to your controller manual for preset programming instructions.

4. Press the spray trigger. The system sprays with the new preset.

See controller configuration F08 for more settings.
Changing Powder Flow with the Settings Trigger

1. See Figure 4-3. Press and hold the Mode button until the Flow Mode icon is lit.

2. Push the settings trigger up or down to change the flow setpoint. This can be done without releasing the spray trigger.

   The powder flow immediately changes. The new flow setpoint is displayed on both the spray gun interface and the controller interface.

Purging the Spray Gun

1. See Figure 4-3. Point the gun into the booth and release the spray trigger.

2. Press and hold the Purge button. The purge will continue as long as you hold the Purge button.

   NOTE: If the settings trigger is configured for Purge, then pressing up or down on the settings trigger purges the gun. Refer to Controller Configuration in your controller manual for setting trigger configuration.

For optimal performance, purge the gun periodically to keep the powder path inside the spray gun clean. The purge length and frequency required will depend on the application.

   NOTE: The purge air only cleans the spray gun powder path. Refer to the system controller manual for additional HDLV purge information.
Electrode Air Wash Operation

Electrode air wash air continually washes the spray gun electrode to prevent powder from collecting on it. Electrode air wash air turns on and off automatically when the spray gun is triggered on and off.

Refer to the pump control unit manual for instructions on adjusting electrode air wash flow.

Daily Operation

**WARNING:** All conductive equipment in the spray area must be connected to a true earth ground. Failure to observe this warning may result in a severe shock.

Initial Startup

With the fluidizing and powder flow set to zero, and no parts in front of the gun, trigger the gun and record the μA output. Monitor the μA output daily, under the same conditions. A significant increase in μA output indicates a probable short in the gun resistor. A significant decrease indicates a resistor or voltage multiplier requiring service.

Startup

1. Turn on the spray booth exhaust fan.
2. Turn on the system air supply.
3. Make sure the spray gun is not triggered, then turn on controller power.
   The displays and icons on the controller interface and gun interface should light.

Standby Button

Use the **Standby** button on the Encore HD controller to shut off the interface and disable the spray gun during breaks in production. When the controller interface is off the spray gun cannot be triggered, and the spray gun interface is disabled.

To turn off controller power, shut system power off at power unit or control panel.
Changing Flat Spray Nozzles

WARNING: Release the spray gun trigger, turn off the interface, and ground the electrode before performing this procedure. Failure to observe this warning could result in a severe electrical shock.

NOTE: The tapered electrode holder of the electrode assembly has been designed for optimized cleaning during color changes on systems using flat spray nozzles. This tapered electrode holder will not accept conical deflectors.

1. Purge the spray gun and turn off the interface in order to prevent accidentally triggering the gun on.
2. See Figure 4-4. Unscrew the nozzle nut counterclockwise.
3. Pull the flat spray nozzle off the electrode assembly.

NOTE: Re-install the electrode if it comes out of the powder outlet tube.

4. See Figure 4-5. Install a new nozzle on the electrode assembly. The nozzle is keyed to the electrode assembly. Do not bend the antenna wire.
5. Screw the nozzle nut onto the gun body clockwise until finger-tight.

NOTE: To clean nozzles, use the Recommended Cleaning Procedure for Powder Contact Parts on page 4-9.

Figure 4-4 Changing a Flat Spray Nozzle

Figure 4-5 Correct Nozzle Orientation
Converting from Flat Spray Nozzles to Conical Nozzles

**WARNING:** Release the spray gun trigger, turn off the interface, and ground the electrode before performing this procedure. Failure to observe this warning could result in a severe electrical shock.

**NOTE:** The tapered flat spray electrode holder shipped with the gun will need to be changed in order to accept the conical nozzles and deflectors. The conical nozzle kit shipped with the gun is required for this conversion.

1. Purge the spray gun and turn off the interface in order to prevent accidentally triggering the gun on.
2. Convert the electrode holder and the nozzle. See Figure 4-6.
   A. Unscrew the nozzle nut counterclockwise and remove it. Pull the flat spray nozzle off the electrode assembly.
   B. Remove the tapered flat spray electrode holder. Do not bend the antenna wire.
   C. Install the non-tapered conical spray electrode holder over the electrode.
   D. Install the conical spray nozzle on the electrode assembly. The nozzle is keyed to the electrode assembly. Screw the nozzle nut onto the gun body clockwise until finger-tight. Install a deflector on the electrode assembly. Do not bend the electrode wire.

**NOTE:** To clean nozzles, use the *Recommended Cleaning Procedure for Powder Contact Parts* on page 4-9.

![Figure 4-6 Converting from a Flat Spray Nozzle to a Conical Spray Nozzle](image-url)
Changing Deflectors or Conical Nozzles

**WARNING:** Release the spray gun trigger, turn off the interface, and ground the electrode before performing this procedure. Failure to observe this warning could result in a severe electrical shock.

**NOTE:** The tapered flat spray electrode holder shipped with the gun will need to be changed in order to accept the conical nozzles and deflectors. The conical nozzle kit shipped with the gun is required for this conversion. See page 4-6 for conversion instructions.

1. Purge the spray gun and turn off the interface to prevent accidentally triggering the gun on.
2. Gently pull the deflector off the electrode holder. If only changing the deflector, install the new one on the electrode holder, being careful not to bend the electrode wire.
3. To change the entire nozzle, unscrew the nozzle nut counterclockwise.
4. Pull the conical nozzle off the electrode assembly.

**NOTE:** If the electrode assembly comes out of the powder outlet tube, re-install it.

5. Install a new conical nozzle on the electrode assembly. The nozzle is keyed to the electrode assembly.
6. Screw the nozzle nut onto the gun body clockwise until finger-tight.
7. Install a new deflector on the electrode assembly. Do not bend the electrode wire.

---

**Figure 4-7 Changing a Conical Nozzle**
Installing the Optional Pattern Adjuster Kit

An optional pattern adjuster kit with integral conical nozzle can be installed in place of a standard flat spray or conical nozzle.

**NOTE:** Deflectors are not included with the pattern adjuster kit; they must be ordered separately. The 38-mm deflector cannot be used with the kit.

1. Remove the deflector, nozzle nut, and conical nozzle, or the nozzle nut and flat spray nozzle.
2. Blow off the electrode assembly.
3. Install the integral conical nozzle onto the electrode assembly and screw the nozzle nut clockwise until finger-tight.
4. Install a 16, 19, or 26-mm deflector onto the electrode holder.

![Pattern Adjuster Kit Installation](image)

Shutdown

1. Purge the spray gun by pressing the **Purge** button until no more powder is blown from the gun.
2. Press the **Standby** button to turn off the spray gun and interface.
3. Turn off the system air supply and relieve the system air pressure.
4. If shutting down for the night or a longer period of time, shut off the system power.

Maintenance

**WARNING:** Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

**WARNING:** Before performing the following tasks, turn off the controller and disconnect system power. Relieve system air pressure and disconnect the system from its input air supply. Failure to observe this warning may result in personal injury.
Recommended Cleaning Procedure for Powder Contact Parts

Nordson Corporation recommends using an ultrasonic cleaning machine and Oakite® BetaSolv emulsion cleaner to clean spray gun nozzles and powder path parts.

**NOTE:** Do not immerse the electrode assembly in solvent. It cannot be disassembled; cleaning solution and rinse water will remain inside the assembly.

1. Fill an ultrasonic cleaner with BetaSolv or an equivalent emulsion cleaning solution at room temperature. Do not heat the cleaning solution.
2. Remove the parts to be cleaned from the gun. Remove the O-rings. Blow off the parts with low-pressure compressed air.

**NOTE:** Do not allow the O-rings to come in contact with the cleaning solution.
3. Place the parts in the ultrasonic cleaner and run the cleaner until all parts are clean and free of impact fusion.
4. Rinse all parts in clean water and dry before re-assembling the spray gun. Inspect the O-rings and replace any that are damaged.

**NOTE:** Do not use sharp or hard tools that will scratch or gouge the smooth surfaces of powder contact parts. Scratches will cause impact fusion.

### Maintenance Procedures

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<th>Component</th>
<th>Procedure</th>
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<td>Spray Gun (Daily)</td>
<td>1. Point the spray gun into the booth. Remove the suction line from the hopper or box feeder and point them in the booth, as well. Push the Color Change button on the system controller and purge the powder delivery system.</td>
</tr>
<tr>
<td></td>
<td>2. Remove the nozzle and electrode assembly and clean them with low pressure compressed air and clean cloths. Check them for wear, and replace them if necessary.</td>
</tr>
<tr>
<td></td>
<td>3. Clean the gun face surface (where the electrode assembly attaches) with low pressure compressed air and a clean cloth.</td>
</tr>
<tr>
<td></td>
<td>4. Blow off the gun and wipe it down with a clean cloth.</td>
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</tbody>
</table>

System Grounds  
Daily: Make sure the system is securely connected to a true earth ground before spraying powder.  
Periodically: Check all system ground connections.
Section 5
Repair

WARNING: Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

Spray Gun Repair

Item numbers in this section match the item numbers in the parts lists.

Figure 5-1   Section View of Spray Gun (item numbers in this section match item numbers in parts list)

1. Nozzle nut
2. Nozzle, flat spray
3. Electrode assembly, flat spray
4. Outlet tube kit
5. Elbow
6. Power supply/body kit
7. Filter assembly
8. Display module
9. Nozzle, flat spray
10. Electrode assembly, flat spray
11. Hook
12. Bezel
13. Trigger switch
14. Lock washer
15. Handle base
16. Ground screw
17. Ground pad
18. Control panel
19. Cable assembly
20. Handle
21. Trigger switch
22. settings/purge trigger
23. Screw (handle to gun body)
24. Inlet tube/hose adapter kit
25. Handle
26. Spray trigger
27. Settings/purge trigger
28. Screw (handle to gun body)

Note: Ground terminal (19D) must always be connected to the ground screw (16).
Display Module Replacement

Display Module Removal
1. See Figures 5-1 and 5-2. Unscrew the top and bottom screws (13) holding the bezel (12), hook (11) and display module (10) onto the gun body.
2. Remove the bezel and slide the hook off the display module.
3. Carefully pull the display module away from the gun.
4. Insert a small screwdriver into the recess in the J3 gun cable/display module connectors to release the catch and disconnect them.
5. Carefully remove the adhesive support pad and the trigger switch header from the display module.
6. If the adhesive support pad remains stuck to the trigger switch header, carefully peel the pad off. Both the display module kit and trigger switch kit include new adhesive support pads.

Display Module Installation
1. On the display module (10), carefully clean the trigger switch header mounting surface and surrounding area with isopropyl alcohol. Allow the surface to dry completely before proceeding.
2. If you are installing a new trigger switch, remove the two liners from the connector side of the trigger switch header as shown in Figure 5-2.
3. Align the trigger switch header with the display module receptacle and push on the header to connect it. Apply even pressure on the header to seal it tightly against the display module.
4. Remove the liner from the new adhesive support pad and install it over the trigger switch header. Apply even pressure on the support pad to seal it to the display module.
5. Connect the J3 display module and cable connector together. The ground wire connector (A) is not used for this version of the gun.
6. Gently fold the trigger switch ribbon cable and display module cable into the gun, and install the display module onto the gun.
7. Slide the hook (11) onto the display module, then install the bezel (12).
8. Install and tighten the screws (13).
Figure 5-2  Display Module Replacement

10. Display module  
11. Hook  
12. Bezel  
13. M3 x 35 screws  

A. Ground wire connector
**Power Supply and Powder Path Replacement**

**Gun Disassembly**
1. Remove the display module from the spray gun as described in *Display Module Replacement* on page 5-2.
2. See Figure 5-1. Unscrew the nozzle nut and remove the nozzle and electrode assembly from the spray gun.
3. Insert a small screwdriver into the recess in the J2 gun cable/power supply connectors to release the catch and disconnect them.
4. See Figure 5-3. Remove the black nylon screw (29) from the gun body.
5. Grasp the handle in one hand and the gun body in the other. Press the thumbs of each hand together while pulling carefully in opposite directions to separate the gun body from the handle. The air wash tubing will prevent a complete separation; leave it connected unless it must be replaced.

![Figure 5-3 Removing the Gun Body from the Handle](image)
Power Supply Replacement

NOTE: If replacing the powder path, skip this procedure.

1. See Figure 5-4. Slide the power supply (6A) out of the gun body (6B).
2. Check the gasket (8) on the back of the bulkhead (9). Replace it if it is damaged. The gasket is stuck to the bulkhead with pressure-sensitive adhesive.

3. Slide the new power supply into the upper cavity of the gun body, guiding the gun body ribs between the raised grooves on the top of the power supply.
4. Press on the end of the power supply to ensure that the power supply contact tip is firmly seated against the brass contact inside the gun body.
5. Route the power supply harness connector through the top hole in the bulkhead.

Figure 5-4  Removing the Power Supply from the Gun Body
Powder Path Removal

**NOTE:** Skip these steps if not replacing the powder path. Go to page 5-8 to reassemble the spray gun.

1. Perform the *Gun Disassembly* procedure on page 5-4.
2. See Figure 5-5. Remove the elbow (5) from the inlet tube (24).
3. Remove the two M3 x 20 screws (21) from the handle base (20).
4. Pull the base away from the handle, then swing the bottom of the ground pad (17) up and away from the handle, then remove it. Leave the ground wire connected to the ground pad.
5. Push the inlet tube (24) up and out of the base, then move the base out of the way and pull the inlet tube out of the handle.
6. Push the outlet tube (4) out of the front of the gun body (6B).
7. Blow off the inlet tube, outlet tube, and elbow, and replace them if the interiors are worn or coated with impact-fused powder. If re-using the tubes, make sure the O-rings are undamaged.

Powder Path Installation

1. See Figure 5-5. Install the outlet tube (4) into the gun body (6B), with the end of the tube flush with the end of the gun body.
2. Install the inlet tube (24) into the handle (25), then install the end of the tube into the handle base (20).
3. Push the handle base close to the handle, then hook the top end of the ground pad (17) into the body and rotate it onto the handle. Make sure the cable wires are not pinched or trapped during re-assembly.
4. Install the handle base onto the handle and ground pad and secure it with the two M3 x 20 screws (21).
5. Install the elbow (5) onto the inlet tube, with the end oriented toward the front of the gun as shown.

**NOTE:** To verify proper installation, place a flashlight inside the bottom of the inlet adapter and verify the internal connections by looking through the outlet tube from the front of the powder spray gun.
Figure 5-5  Powder Path Replacement

4. Outlet tube kit  
5. Elbow  
6B. Gun body  
7. Filter assembly  
17. Ground pad  
20. Handle base  
21. M3 x 20 screws  
24. Inlet tube/hose adapter kit  
25. Handle
Gun Re-Assembly

1. See Figure 5-6. Align the gun body with the handle and slide them together, engaging the internal ribs of the gun body with the handle tabs.

**NOTE:** Make sure that the power supply harness is not pinched between the bulkhead and the power supply.

2. Insert your finger into the outlet tube at the front of the gun and align the inside end of the tube with the elbow, then push on the tube to seat it in the elbow.

3. Connect the power supply harness to the gun cable, then tuck both through the bottom hole in the bulkhead, into the gun body.

4. See Figure 5-2. Install the display module as described in *Display Module Installation* on page 5-2.

5. Install the electrode assembly (3) into the the end of the outlet tube at the front of the gun body. Make sure the wire electrode is not bent or broken.

**NOTE:** The flat spray and conical nozzles each have their own respective electrode holders.

6. Install the nozzle (2) on the electrode assembly, making sure the keys in the electrode assembly slide into the slots on the nozzle.

7. Install the nozzle nut (1) over the nozzle and rotate clockwise to secure.
Cable Replacement

Cable Removal
1. Disconnect the gun cable from the controller.
2. See Figure 5-7, View A. Remove the two M3 x 20 screws (21) securing the handle base (20) to the handle.
3. Remove the lower M3 x 35 screw (13) from the display module.
4. Pull the base away from the handle enough to free the bottom edge of the ground pad (17) from the base.
5. Pull the bottom edge of the ground pad out and away from the handle.
6. See Figure 5-7, View B. Remove the M3 x 8 screw, lock washer (16, 15), and ground terminal from the ground pad.
7. Remove the retaining ring (18) from the cable.
8. See Figure 5-7, View C. Pull the cable connectors out of the handle. Insert a small flat-bladed screw driver in the slots of the power supply and display connectors to release the catch and disconnect them.
9. Pull the cable out of the handle base, feeding the connectors through the base one at a time.

Figure 5-7 Cable Replacement

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Lock washer</td>
<td>17. Ground pad</td>
<td>20. Handle base</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21. M3 x 20 screws</td>
</tr>
</tbody>
</table>
Cable Installation
1. See Figure 5-7. Feed a new cable through the handle base, then install the retaining ring (18) on the cable to hold it in place.
2. Connect the cable to the display module and power supply connectors.
3. Connect the cable terminal to the ground pad (17) with the M3 x 6 screw and lock washer (16, 15).
4. Tuck the cable connectors and ground wire into the gun, below the multiplier.
5. Hook the top of the ground pad into the gun body, then rotate it into position on the handle.
6. Push the handle base (20) up against the handle and ground pad, and tighten securely the two M3 x 20 screws (21) in the base.
7. Re-install the M3 x 35 screw (13) in the bottom of the display module.

Trigger Switch Replacement

Switch Removal
1. Remove the display module and disconnect the trigger switch ribbon cable from the module as described in Display Module Removal on page 5-2.
2. Remove the gun body from the handle as described in Gun Disassembly on page 5-4.
3. See Figure 6-8. Pull out the elbow (5) off the inlet tube.
4. Push the small diameter end of the axle (30) out of the handle with a small, flat-ended punch or other tool.
5. Remove the spray trigger (27), actuator (26), and purge trigger (28) from the handle.
6. Use a tool to pry and pull the trigger switch (14) off the handle, then pull it up and out of the handle.
Switch Installation

1. See Figure 5-8. Orient the new switch (14) with the grid facing the front of the gun, then carefully feed the square, bottom end of the switch through the slot in the handle.

2. Peel the adhesive release liner from the back of the switch.

3. Carefully install the switch against the bottom and left edges of the trigger recess, pressing the switch against the back of the recess. Run your finger up and down on the switch to ensure it is securely adhered to the handle.

4. Install the purge trigger (28) into the spray trigger (27) with the gusset oriented upward as shown. **Do not install the purge trigger upside down.**

5. Position the triggers in the handle and hold them in place while pressing the axle (31) through the handle and triggers until the head of the axle is flush with the handle. The axle will snap into place when properly installed.

6. Feed the trigger switch ribbon cable through the bottom of the bulkhead and connect the ribbon cable connector to the display module as described in *Display Module Installation* on page 5-2.

7. Re-assemble the gun as described in *Gun Re-assembly* on page 5-8.
WARNING: Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

WARNING: Before making repairs to the controller or spray gun, shut off system power and disconnect the power cord. Shut off the compressed air supply to the system and relieve the system pressure. Failure to observe this warning could result in personal injury.

These troubleshooting procedures cover only the most common problems. If you cannot solve a problem with the information given here, contact Nordson technical support at (800) 433–9319 or your local Nordson representative for help.
Spray Gun Power Supply Resistance Test

Use a megohm meter to check the resistance of the power supply, from the J2–3 feedback terminal at the connector to the contact pin inside the front end. The resistance should be between 225–335 megohms. If the reading is infinite, switch the meter probes. If the resistance falls outside this range, replace the power supply.

**NOTE:** There are multiple variables that can affect the Meg–Ohm readings of your meter (temperature and measurement voltage). If the Meg–Ohm meter output voltage differs from the 500 VDC setting, it will have a direct impact on the measurement accuracy. Measurements should also be taken at room temperature 22°C or 72°F. Allow time for the multiplier to cool to room temperature for repeatable results.

![Power Supply Resistance Test Diagram](image-url)

Figure 6-9  Power Supply Resistance Test
Electrode Assembly Resistance Test

Use a megohm meter to measure the resistance of the electrode assembly from the contact ring on the back to the antenna wire in the front. The resistance should be 19–21 megohms. If the resistance is out of this range replace the electrode assembly.

Figure 6-10  Electrode Assembly Resistance Test
Gun Cable Continuity Test

Test for continuity as follows:

- J1–1 and J3–3
- J1–2 and J2–2
- J1–2 and J3–2
- J1–3 and J2–1
- J1–4 and J3–1
- J1–5 and J2–3
- J1–6 and Ring-tong terminal on gun end.

Figure 6-11 Gun Cable Wiring
Section 7
Parts

Introduction

To order parts, call the Nordson Industrial Coating Systems Customer Support Center at (800) 433-9319 or contact your local Nordson representative.

This section covers parts and options for the Encore HD manual powder spray gun.

Reference Documentation

For additional information related to other components in the system, reference the following documentation:

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Document Part Number</th>
</tr>
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<tbody>
<tr>
<td>Encore HD/XT System Controller Manual</td>
<td>1604870</td>
</tr>
<tr>
<td>Encore Cup Gun Kit</td>
<td>1102764</td>
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<tr>
<td>Encore HD Powder Spray Gun Lance Extensions</td>
<td>1604971</td>
</tr>
<tr>
<td>Pattern Adjuster Kit for Lance Extensions</td>
<td>1100013</td>
</tr>
<tr>
<td>Pattern Adjuster Kit for Encore Manual Spray Guns</td>
<td>1098440</td>
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</table>
Spray Gun Parts

See Figure 7-1 and the parts list on the following pages.
Spray Gun Parts List

See Figure 7-1.

<table>
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<tr>
<th>Item</th>
<th>Part</th>
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<th>Note</th>
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<td>1097527</td>
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<td>19A</td>
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<td>760580</td>
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<td>• CHECK VALVE, male, M5 x 6 mm</td>
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<td>• FITTING, bulkhead, barb, dual, 10–32 x 4 mm</td>
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<td>24</td>
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<td>24B</td>
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<td>24C</td>
<td>1606709</td>
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<td>24D</td>
<td>940137</td>
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<td>25</td>
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<td>27</td>
<td>1606999</td>
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<td>28</td>
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<td>29</td>
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<td>• SCREW, flat head, recess, M5x 10, nylon</td>
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Continued...
### Parts

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<tr>
<th>Item</th>
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<th>Quantity</th>
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<tr>
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<td>• AXLE, trigger, spray gun, Encore</td>
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<td>31</td>
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<td>32</td>
<td>1083205</td>
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<td>32A</td>
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<td>1083206</td>
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<td>32A</td>
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<td>33</td>
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<td>34</td>
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<td>NS</td>
<td>1081658</td>
<td>• NOZZLE, flat spray, 4 mm</td>
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</table>

**NOTE**

A: 3- and 4-mm flat spray nozzles, conical nozzles, and deflectors are shipped with the spray gun. Refer to the following pages for optional nozzles.

B: This O-ring is a component of all deflectors.

C: Order in increments of one foot or one meter.

D: Also available in wear resistant material. Refer to *Spray Gun Options*.

E: Optional 6 meter extension available; refer to *Spray Gun Options*.

F: For flat spray nozzle use only. Use kit item 32 to convert for conical nozzle and deflector use.

G: Included with trigger switch kit 1101872.

H: Application Specific: Order part number 1609053 if a positive power supply is needed. The positive power supply is sold separately from the gun body.

### Spray Gun Options

#### Miscellaneous Spray Gun Options

*See Figure 7-1.*

<table>
<thead>
<tr>
<th>Item</th>
<th>Part</th>
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<th>Quantity</th>
<th>Note</th>
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</thead>
<tbody>
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<td>4</td>
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<td>KIT, powder outlet tube, wear resistant</td>
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<td>941113</td>
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NS: Not Shown
Spray Gun Options  (contd)

**nLighten**

nLighten is an LED inspection kit that helps powder coaters improve quality by effectively illuminating hard to see surface areas. Any imperfection or missed area is quickly identified and corrected. Find out more at: nordsoncoating.com/nLighten.

![nLighten](image)

Figure 7-2   LED Inspection Kit
**Flat Spray Nozzles**

3- and 4-mm flat spray nozzles are shipped with the spray gun. All other flat spray nozzles are optional.

<table>
<thead>
<tr>
<th>2.5 mm Flat Spray</th>
<th>3 mm Flat Spray</th>
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</thead>
<tbody>
<tr>
<td>1081656</td>
<td>1081657</td>
</tr>
<tr>
<td>4 mm Flat Spray</td>
<td>6 mm Flat Spray</td>
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<tr>
<td>1081658</td>
<td>1081659</td>
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Figure 7-3   Flat Spray Nozzles

**Cross Cut Nozzles**

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<thead>
<tr>
<th>60 Degree Cross-cut</th>
<th>90 Degree Cross-cut</th>
<th>2.5 mm Castle</th>
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<td>1082184</td>
<td>1082185</td>
<td>1082186</td>
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Figure 7-4   Cross-cut Nozzles
### 45-Degree Corner-Spray Nozzle

See Figure 7-5.

<table>
<thead>
<tr>
<th>Spray Pattern</th>
<th>Wide fan pattern perpendicular to the spray gun axis</th>
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</thead>
<tbody>
<tr>
<td>Slot Type</td>
<td>Angled, cross slot</td>
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<tr>
<td>Application</td>
<td>Flanges and recesses</td>
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<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Note</th>
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<tbody>
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<td>1102872</td>
<td>NOZZLE, corner spray, Encore</td>
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</tbody>
</table>

![Figure 7-5 45-Degree Corner Spray Nozzle](image)

### 45-Degree In-Line Flat-Spray Nozzle

See Figure 7-6.

<table>
<thead>
<tr>
<th>Spray Pattern</th>
<th>Narrow fan pattern in-line with spray gun axis</th>
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</thead>
<tbody>
<tr>
<td>Slot Type</td>
<td>Three angled slots in-line with spray gun axis</td>
</tr>
<tr>
<td>Application</td>
<td>Top and bottom coating; typically no in/out part positioning</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Note</th>
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<tr>
<td>1102871</td>
<td>NOZZLE, 45 degree, flat spray, Encore</td>
<td></td>
</tr>
</tbody>
</table>

![Figure 7-6 45-Degree Flat Spray Nozzle](image)
Conical Nozzle, Deflectors and Electrode Assembly Parts

See Figures 7-7, 7-8, and 7-9. The conical nozzle and deflectors must be used with the conical electrode holder. One conical nozzle kit (1604828) and one 19 mm deflector (1083205) are shipped with the gun. Other parts shown here are optional and must be ordered separately.

Conical Nozzle and Deflectors

![Conical Nozzle and Deflectors](image)

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Quantity</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1082060</td>
<td>Conical Nozzle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1083201</td>
<td>16-mm Deflector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1083205</td>
<td>19-mm Deflector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1083206</td>
<td>26-mm Deflector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1083207</td>
<td>38-mm Deflector</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All deflectors include a 1098306 O-ring, Viton, 3 mm x 1.1 mm wide

Figure 7-7 Conical Nozzle and Deflectors

Conical Nozzle Kit (shipped with gun)

![Conical Nozzle Kit](image)

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Quantity</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1604828</td>
<td>KIT, conical nozzle, Encore</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1083206</td>
<td>DEFLECTOR, 26 mm</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1082060</td>
<td>NOZZLE, conical</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1605861</td>
<td>ELECTRODE HOLDER, conical</td>
<td>1</td>
<td>A</td>
</tr>
</tbody>
</table>

NOTE A: The conical nozzle requires a different style electrode holder than what is used in the flat spray nozzle electrode assembly.
Conical Nozzle, Deflectors and Electrode Assembly Parts (contd)

Conical Electrode Assembly

![Conical Electrode Assembly Image]

Figure 7-9 Conical Electrode Assembly

<table>
<thead>
<tr>
<th>Item</th>
<th>Part</th>
<th>Description</th>
<th>Quantity</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>1</td>
<td>—</td>
<td>ELECTRODE SUPPORT</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>2</td>
<td>1106078</td>
<td>ELECTRODE</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>3</td>
<td>1605861</td>
<td>ELECTRODE HOLDER, Conical</td>
<td>1</td>
<td>A</td>
</tr>
</tbody>
</table>

NOTE A: The conical nozzle requires a different style electrode holder than what is used in the flat spray nozzle electrode assembly.

XD Electrode Support

The XD (extended duty) Electrode Support provides 2 to 3 times longer wear life than that of the standard duty electrode support.

![XD Electrode Support Images]

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1613834</td>
<td>XD Flat Spray Electrode Support</td>
</tr>
<tr>
<td>1613835</td>
<td>XD Conical Spray Electrode Support</td>
</tr>
</tbody>
</table>

Figure 7-10 Conical Spray and Flat Spray Electrode Supports
**Pattern Adjuster Kit**

The pattern adjuster kit includes an integral conical nozzle. 16, 19, and 26-mm deflectors can be used with the kit. The deflectors are not included with the kit and must be ordered separately.

![Pattern Adjuster Kit](image)

Encore HD Manual Gun Pattern Adjuster Kit

Figure 7-11 Pattern Adjuster Kit

**Lance Extensions**

The nozzles listed on the preceding pages install directly on the lance extensions. Refer to the instruction sheet shipped with the lance extensions for installation instructions and repair parts.

**NOTE:** A conical electrode holder is required for use with conical deflectors and lance extensions. See page 7-8.

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1604965</td>
<td>EXTENSION, lance, 150 mm, Encore HD</td>
<td>A</td>
</tr>
<tr>
<td>1604970</td>
<td>EXTENSION, lance, 300 mm, Encore HD</td>
<td>A</td>
</tr>
</tbody>
</table>

**NOTE A:** If a longer lance extension is required, contact your Nordson representative.

**Ion Collector Kit**

This kit installs on the standard length gun. Refer to the instruction sheet shipped with the spray gun for installation instructions and repair parts.

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1603854</td>
<td>KIT, ion collector assembly, manual, Encore (std length gun)</td>
<td></td>
</tr>
</tbody>
</table>
Ion Collector Components for Lance Extensions

To use the ion collector kit listed above with 150-mm or 300-mm Lance Extensions, order one of the rods and the bracket listed below. Refer to the instruction sheet shipped with the kit for installation instructions.

<table>
<thead>
<tr>
<th>Item</th>
<th>Part</th>
<th>Description</th>
<th>Quantity</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>—</td>
<td>189483</td>
<td>ROD, ion collector, 15 in.</td>
<td>1</td>
<td>A</td>
</tr>
<tr>
<td>—</td>
<td>189484</td>
<td>ROD, ion collector, 21 in.</td>
<td>1</td>
<td>B</td>
</tr>
</tbody>
</table>

NOTE  
A: Use for 150-mm lance extension.  
B: Use for 300-mm lance extension.

Powder Hose and Air Tubing

Powder hose and air tubing must be ordered in increments of one foot.

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1081783</td>
<td>Powder hose, 6 mm ID x 8 mm OD, polyolefin (by 100 ft)</td>
<td>B, E</td>
</tr>
<tr>
<td>1080388</td>
<td>Powder hose, 6 mm ID x 8 mm OD, polyolefin (by 500 ft)</td>
<td>C, E</td>
</tr>
<tr>
<td>1606690</td>
<td>Clear powder hose, 6 mm ID x 8 mm OD, polyurethane (by 100 ft)</td>
<td>A, F</td>
</tr>
<tr>
<td>1606695</td>
<td>Clear powder hose, 6 mm ID x 8 mm OD, polyurethane (by 500 ft)</td>
<td>C, F</td>
</tr>
<tr>
<td>900617</td>
<td>Air tubing, polyurethane, 4 mm, clear, electrode air wash</td>
<td>A</td>
</tr>
<tr>
<td>900742</td>
<td>Air tubing, polyurethane, 6 mm, blue, pattern air</td>
<td>A</td>
</tr>
<tr>
<td>1096789</td>
<td>Air tubing, antistatic, 6/4 mm, black (conductive air tubing), VBF pickup</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>tube to controller</td>
<td></td>
</tr>
<tr>
<td>900741</td>
<td>Air tubing, polyurethane, 6 mm, black</td>
<td></td>
</tr>
<tr>
<td>900618</td>
<td>Air tubing, polyurethane, 8 mm, blue</td>
<td>A</td>
</tr>
<tr>
<td>900619</td>
<td>Air tubing, polyurethane, 8 mm, black</td>
<td>A</td>
</tr>
<tr>
<td>900740</td>
<td>Air tubing, polyurethane, 10 mm, blue, main air IN</td>
<td>A</td>
</tr>
<tr>
<td>900517</td>
<td>Tubing, poly, spiral cut, 0.62 in. ID, dress out</td>
<td></td>
</tr>
<tr>
<td>301841</td>
<td>Strap, Velcro, w/buckle, 25 x 3 cm, dress out</td>
<td></td>
</tr>
</tbody>
</table>

NOTE  
A: Minimum order quantity is 50 ft.  
B: Minimum order quantity is 100 ft.  
C: Minimum order quantity is 500 ft.  
D: This tubing is used on VBF systems to provide fluidizing air from the bulkhead union to the pickup tube. It is conductive and grounds the pickup tube to the cart body. Do not replace with non-conductive tubing.  
E: Standard powder hose delivered with system.  
F: Optional powder hose to use in place of the standard polyolefin.
EU DECLARATION of Conformity

Models: Encore XT Manual, Fixed Mount or Mobile Dolly unit.
Encore Auto Applicator with Encore XT controls for a single gun automatic systems.
Encore HD Manual, Fixed Mount or Mobile Dolly unit.

Description: These are all electrostatic, powder spray systems, including applicator, control cables and associated controllers. The Encore XT Manual system uses venturi style pump technology for supplying power to the spray gun. While the Encore HD Manual system uses high density pump technology for supplying power to the spray gun. The Encore Auto Gun is listed with Manual XT controls for single auto gun applications and could be mounted to a gun stand or on a robot.

Applicable Directives:

Standards Used for Compliance:


Principles:
This product has been designed & manufactured according to the Directives & standards / norms described above.

Type of Protection:
- Ambient Temperature: +15ºC to +40ºC
- Ex tb IIB T60ºC / Ex II 2 D / 2mJ = (Encore XT and HD Applicators)
- Ex tc IIB T60ºC / Ex II (2) 3 D = (Controllers)
- Ex II 2 D / 2mJ = (Encore Auto Applicator)

Certificates:
- FM14ATEX0051X = Encore XT and HD Manual Applicators (Norwood, Mass. USA)
- FM14ATEX0052X = Controls (Norwood, Mass. USA)
- FM11ATEX0056X = Encore Automatic Applicator (Norwood, Mass. USA)

ATEX Surveillance
- 1180 SGS Baseefa (Buxton, Derbyshire, UK)

Date: 30 NOV 2017

Vance Wilson
Engineering Manager
Industrial Coating Systems
Amherst, Ohio, USA

Nordson Authorized Representative in the EU
Contact: Operations Manager
Industrial Coating Systems
Nordson Deutschland GmbH
Heinrich-Hertz-Straße 42-44
D-40699 Erkrath

Nordson Corporation • Westlake, Ohio

DOC14034-05
Table:

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1082815</td>
<td>Encore XT Controller Power Unit, Relay Board Set Up For 230V, 50Hz, VBF Option X XT</td>
</tr>
<tr>
<td>1600468</td>
<td>Encore XT Controller Power Unit, Relay Board Set Up For 115V, 60Hz, VBF Option X XT</td>
</tr>
<tr>
<td>1605586</td>
<td>Encore HD Controller Power Unit, Relay Board Set Up For 230V, 50Hz, VBF Option X HD With HD Pump</td>
</tr>
<tr>
<td>1605584</td>
<td>Encore HD Controller Power Unit, Relay Board Set Up For 115V, 60Hz, VBF Option X HD With HD Pump</td>
</tr>
<tr>
<td>1606978</td>
<td>Encore HD Hybrid Controller Power Unit, Relay Board Set Up For 230V, 50Hz, VBF Option X HD With Prodigy Pump</td>
</tr>
<tr>
<td>1606977</td>
<td>Encore HD Hybrid Controller Power Unit, Relay Board Set Up For 115V, 60Hz, VBF Option X HD With Prodigy Pump</td>
</tr>
<tr>
<td>1611086</td>
<td>Encore HD Controller Power Unit, Relay Board Set Up For 115V, 60Hz VBF Option X HD With HD+ Pump</td>
</tr>
<tr>
<td>1611089</td>
<td>Encore HD Controller Power Unit, Relay Board Set Up For 230V, 50Hz Option X HD With HD+ Pump</td>
</tr>
<tr>
<td>1609709</td>
<td>Controller Interface Cable 50 Ft X XT &amp; HD</td>
</tr>
<tr>
<td>1080718</td>
<td>Controller Interface Cable 10 Ft X XT &amp; HD</td>
</tr>
<tr>
<td>1080719</td>
<td>Controller Interface Cable 30 Inch X XT &amp; HD</td>
</tr>
<tr>
<td>1085168</td>
<td>Encore XT Controller Power Unit, Relay Board Set Up For 230V VBF</td>
</tr>
<tr>
<td>1600818</td>
<td>Encore XT Handgun X XT</td>
</tr>
<tr>
<td>1603160</td>
<td>Encore HD Handgun X HD</td>
</tr>
<tr>
<td>1097489</td>
<td>Encore Automatic Gun - 1097489 Optional 90 Degree Extension- 1604084</td>
</tr>
<tr>
<td>1605436</td>
<td>Cable, Spray Gun, Robot, Auto, Encore X With XT &amp; HD Controls</td>
</tr>
<tr>
<td>1600745</td>
<td>Encore XT/HD 6M Handgun Cable Assembly X XT &amp; HD</td>
</tr>
<tr>
<td>1605168</td>
<td>6 M Handgun Cable Extension, 6-Conductor, Shielded, 1086323</td>
</tr>
<tr>
<td>1611977</td>
<td>nLighten 1611977 Optional LED Light Kit</td>
</tr>
<tr>
<td>1604084</td>
<td>OPTIONAL 90 DEGREE EXTENSION - 1604084</td>
</tr>
<tr>
<td>1600818</td>
<td>ENCORE XT HANDGUN 1600818</td>
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<tr>
<td>1603160</td>
<td>ENCORE HD HANDGUN 1603160</td>
</tr>
<tr>
<td>1606978</td>
<td>ENCORE HD HYBRID POWER UNIT W/FRODIGY PUMP 1606978 FOR 230V VBF</td>
</tr>
<tr>
<td>1606977</td>
<td>ENCORE HD HYBRID POWER UNIT W/FRODIGY PUMP 1606977 FOR 115V VBF</td>
</tr>
<tr>
<td>16011086</td>
<td>ENCORE HD CONTROLLER POWER UNIT, RELAY BOARD SET UP FOR 115V, 60HZ VBF OPTION X HD WITH HD+ PUMP</td>
</tr>
<tr>
<td>16011089</td>
<td>ENCORE HD CONTROLLER POWER UNIT, RELAY BOARD SET UP FOR 230V, 50HZ OPTION X HD WITH HD+ PUMP</td>
</tr>
</tbody>
</table>

Critical:
No revisions permitted without approval of the proper agency.
NOTICE

THIS DRAWING IS NORDSON PROPERTY, CONTAINS PROPRIETARY INFORMATION AND MUST BE RETURNED UPON REQUEST.

ENCORE HD 115V & 230V HYBRID VBF

MOBILE POWDER SYSTEMS

ENCORE HD 115V & 230V VBF

MOBILE POWDER SYSTEMS

ENCORE HD 50LB HOPPER

MOBILE POWDER SYSTEMS

ENCORE XT 50LB HOPPER

MOBILE POWDER SYSTEMS

ENCORE HD HYBRID 50LB HOPPER

MOBILE POWDER SYSTEMS (WITH PRODIGY)

HEIGHT: 1078 [42.5]
WEIGHT: 50.8kg [112lbs]

HEIGHT: 1078 [42.5]
WEIGHT: 54.4kg [119lbs]

HEIGHT: 1078 [42.5]

HEIGHT: 1078 [42.5]

HEIGHT: 1078 [42.5]

HEIGHT: 1078 [42.5]