Encore® LT Manual
Powder Spray Gun

Customer Product Manual
Document Number 1626659-01
– English –
Issued 11/24

For parts and technical support, call the Industrial Coating Solutions Customer Support Center at (800) 433-9319 or contact your local Nordson representative.

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Contact Us
Nordson Corporation welcomes requests for information, comments, and inquiries about its products. General information about Nordson can be found on the Internet using the following address:
http://www.nordson.com

http://www.nordson.com/en/global-directory

Change Record

Revision	Date	Change
01	11/24	Release LT spray gun as separate manual. Updated parts list to feature kits.

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 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 Material 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.

- Ground all conductive equipment. Use only grounded air and fluid hoses. Check equipment and workpiece grounding devices regularly. Resistance to ground must not exceed one megohm.
- Shut down all equipment immediately if you notice static sparking or arcing. Do not restart the equipment until the cause has been identified and corrected.
- Do not smoke, weld, grind, or use open flames where flammable materials are being used or stored. Do not heat materials to temperatures above those recommended by the manufacturer. Make sure heat monitoring and limiting devices are working properly.
- Provide adequate ventilation to prevent dangerous concentrations of volatile particles or vapors. Refer to local codes or your material SDS for guidance.
- Do not disconnect live electrical circuits when 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.
- Shut off electrostatic power and ground the charging system before adjusting, cleaning, or repairing electrostatic equipment.
- 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 system electrical power. Close hydraulic and pneumatic shutoff valves and relieve pressures.
- Identify the reason for the malfunction and correct it before restarting the system.

Disposal

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

Description

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

The Encore LT manual powder spray gun should be used with the Encore VT manual system controller, which provides electrostatic voltage control, electrode air-wash air, and powder pump air. Refer to Table 1 for compatible systems.

NOTE: Encore LT manual powder spray gun can also be used with LT manual system.

Table 1 Compatible Systems for the Encore LT Manual Powder Spray Gun

System	System Manual Part Number
Encore VT Mobile Systems	1626653
Encore VT Manual Wall or Rail Mount Systems	

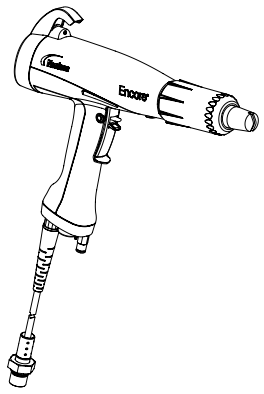


Figure 1 Encore LT Manual Powder Spray Gun

Included with the spray gun assembly:

- Flat spray nozzle with 4-mm slot
- Conical nozzle kit
  - Conical nozzle
  - 26-mm deflector
  - Conical electrode holder

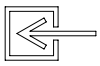
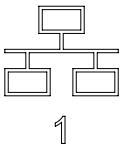
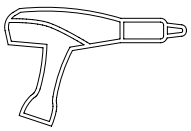
NOTE: Use the conical nozzle kit to convert from flat spray to conical spray applications.

Optional equipment:

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

Refer to *Spray Gun Operation* in the *Operation* section for information on additional options.

Common Powder Symbols

Symbol	Description
	Atomizing Air (VT) Pattern Air (HD)
	Electrode Air Wash
	Flow Air
	Fluidizing Air
	System Input Air
	Interconnect Cable Receptable or Network 1 - Power-CAN 2 - LAN 3 - WAN
	Purge Air
	Spray Gun or Spray Gun Receptacle

Specifications

Model: Encore Applicator	
Input Rating:	+/− 19 VAC, 1 A
Output Rating:	100 KV, 100 µA
Input Air:	6.0−6.9 bar (87−100 psi), <5µ particulates, dew point <10 °C (50 °F)
Max Relative Humidity:	95% non-Condensing
Ambient Temperature Rating:	+15 to +40 °C (59−104 °F)
Hazardous Location Rating for Applicator:	Zone 21 or Class II, Division 1
Dust Ingress Protection:	IP6X

Equipment Labels

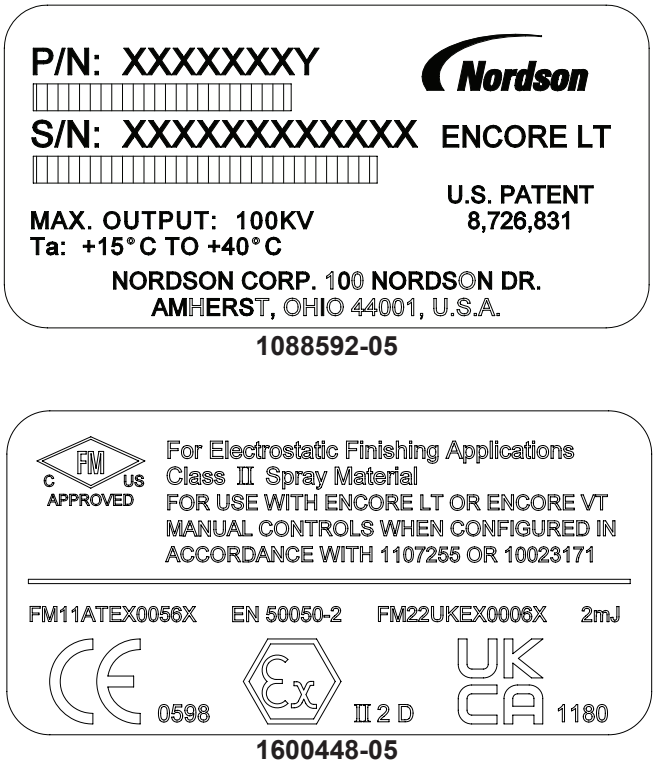


Figure 2 Spray Gun Certification Labels

Installation

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

Air Tubing and Powder Hose

1. See Figure 3. Connect the 6-mm black air tubing (4) to the quick-disconnect fitting in the spray gun handle.
2. Connect the 4-mm clear electrode air wash tubing (5) to the barbed fitting in the gun handle.
3. Connect the powder hose (3) to the hose adapter (1) with the arrow on the powder hose pointing toward the adapter. Then, plug the hose adapter into the handle.

NOTE: 6 meters (20 ft) of 11 mm ID powder hose is shipped with the system. If a longer hose is required, switch to 1/2-in. ID powder hose. Refer to *Parts* for hose part numbers.

4. Route and connect the air tubing to the VT pump controller. Refer to the applicable system controller manual for location of connection on the controller.
   a. Connect the 6-mm black tubing (4) to the purge air quick-disconnect fitting.
   b. See Figure 4. Connect the 4-mm clear tubing (5) and the flow control valve (7) supplied with the system to the air wash connector (6) on the spray gun controller as shown.

   NOTE: The flow control valve can be located anywhere desired. Use a tubing cutter to make sure the tube ends are square.
5. Use the sections of black spiral-cut tubing supplied with the system to bundle together the spray gun cable, air tubing, and powder hose. Coil any access bundled tubing and cable.

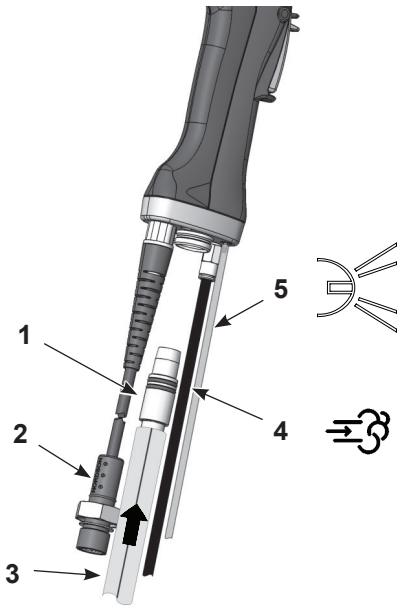


Figure 3 Spray Gun Connections

1. Hose adapter
2. Spray gun cable
3. Powder hose
4. 6-mm black air tubing
5. 4-mm electrode air wash tubing

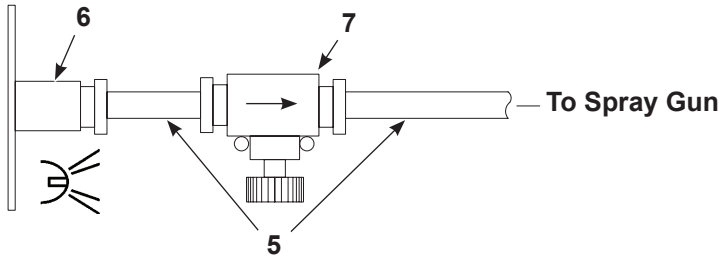


Figure 4 Flow Control Valve and Air Wash Tubing Connection

5. 4-mm electrode air wash tubing
6. Air wash connector
7. Flow control valve

Operation

WARNING:

- Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation. Wear safety glasses to prevent personnel injury.
- 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.
- Caution should be taken when cleaning external painted and non- metallic surfaces of the controller, interface, applicator, and all accessories. There is a potential for static electricity build up on these components. Follow the manufacturer's instructions to avoid possible electrostatic charging hazards. Guidance on protection against the risk of ignition due to electrostatic discharge can be found in PD CLC/TR 60079-32-1 and IEC TS 60079-32-1.

European Union, EX, Special Conditions for Safe Use

1. The Encore LT Powder Electrostatic Manual Applicators shall only be used with the separately and suitably certified Encore LT Controllers and Mobile Powder Systems, and/or the separately and suitably certified Encore VT Manual and Mobile Powder Systems, in accordance with the manufacturer's instructions.
2. Follow the manufacturer's instructions to avoid possible electrostatic charging hazards.

Spray Gun Operation

NOTE: Refer to the onscreen Help for operation related to the operator interface.

See Figure 5.

To spray powder, pull the spray trigger (2).

To purge the spray gun, release the spray trigger and press down on the purge trigger (1). If using a vibratory box feeder, fluidizing air is shut off while the gun is being purged.

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 is turned on and off automatically when the spray gun is triggered on and off.

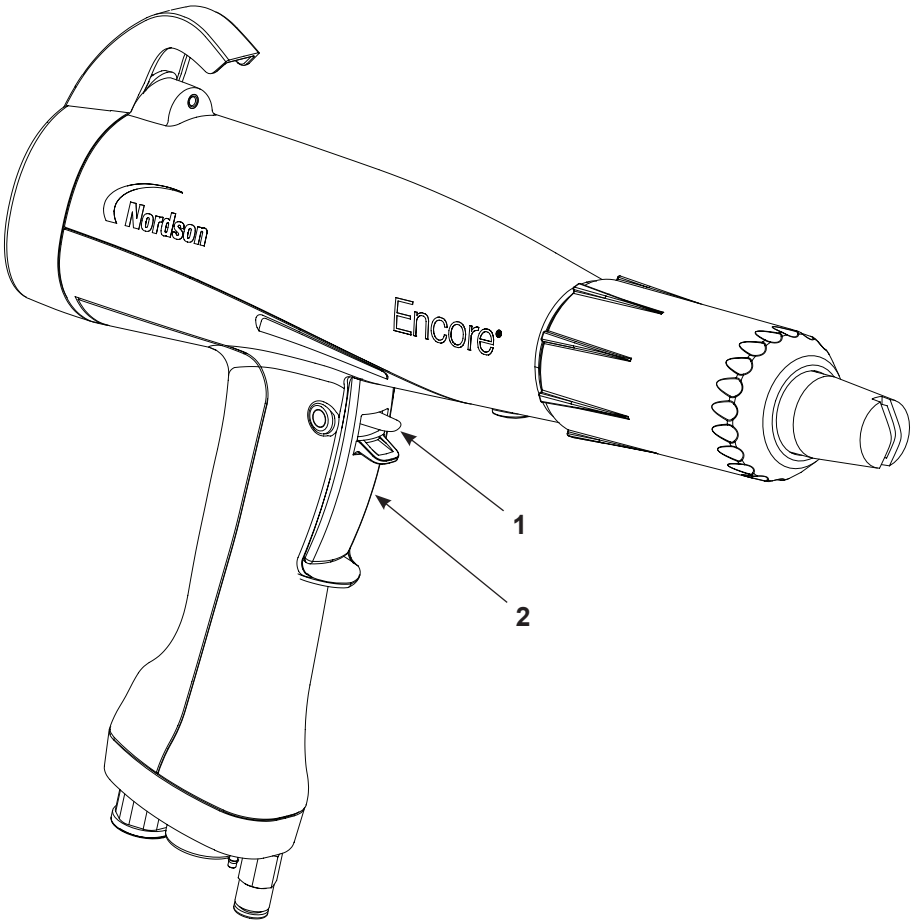


Figure 5 Spray Gun Triggers

1. Purge trigger
2. Spray trigger

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 air and powder flow air 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. Verify the spray gun pump is connected to a source of powder.
4. Make sure the spray gun is not triggered, then turn on controller power. The display on the operator interface, or displays and icons on the controller interface should light.

NOTE: If the spray gun is triggered on when the controller is powered up, a fault will occur. To clear the fault, release the trigger and cycle power on the pump controller.

5. Point the spray gun into the booth and press the trigger to start spraying powder.
6. Adjust fluidizing air pressure if necessary, using the needle valve on the rear panel of the controller:
   - **Box Feeder**: Fluidizing air only turns on when the gun is triggered. The air flow should just fluidize the powder around the pickup tube. The powder should not boil violently or fountain out of the box.
   - **Feed Hopper**: Fluidizing air is on continuously as long as the controller is on. The powder should boil gently, without any fountains.
7. Adjust the flow air and atomizing air at the controller to achieve the desired powder flow rate and spray pattern.

The controller interface displays actual kV or µA output when the gun is spraying and setpoints when the gun is off. The air flow displays always show the setpoints.

To turn off controller power, shut system power off at the pump controller.

Purging

When purge air is turned on, the electrostatic voltage and pump air is turned off.

Purge the spray gun periodically to keep the powder path inside the spray gun clean. The purge length and frequency needed depend on the application and powder.

NOTE: The purge air only cleans the spray gun powder path. To purge the powder hose, disconnect it from the pump and the gun, place the gun end inside the booth, and blow it out from the pump end with compressed air.

Changing Flat Spray Nozzles

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

WARNING: The electrode assembly is a sharp object. Use caution when electrode assembly is exposed to prevent personnel injury.

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 follow the controller procedure to turn power OFF to the spray gun in order to prevent accidental gun triggering.
2. See Figure 6. Unscrew the nozzle nut counterclockwise.
3. Pull the flat spray nozzle off the electrode assembly.

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

4. 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.
6. Turn controller power ON.

NOTE: To clean nozzles, use the *Recommended Cleaning Procedure for Powder Contact Parts* in the *Maintenance* section.

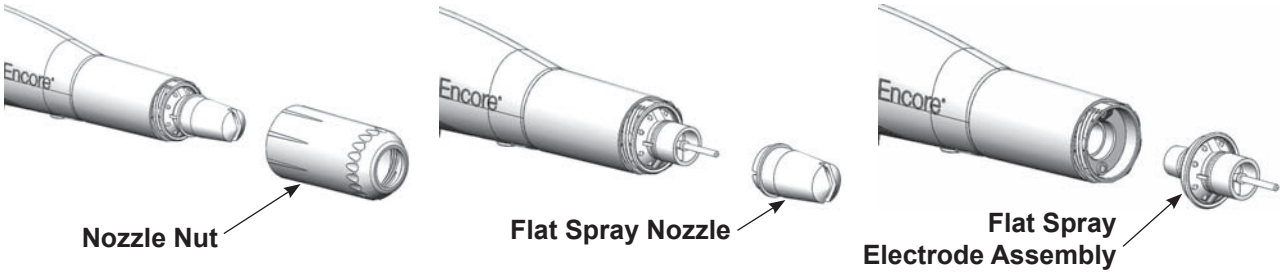


Figure 6 Changing a Flat Spray Nozzle

Changing Conical Nozzles and Deflectors

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

WARNING: The electrode assembly is a sharp object. Use caution when electrode assembly is exposed to prevent personnel injury.

NOTE: The electrode assembly shipped with the gun is fitted with a tapered electrode holder that will not accept a conical deflector and must be changed prior to using the conical nozzle and deflector. Follow the instructions in the conical nozzle kit shipped with the gun for this conversion.

1. Purge the spray gun and follow the controller procedure to turn power OFF in order to prevent accidental gun triggering.
2. See Figure 7. Gently pull the deflector off the electrode assembly. If only changing the deflector, install the new one on the electrode assembly, 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: Re-install the electrode assembly if it comes out of the powder outlet tube.

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.
8. Turn controller power ON.

NOTE: To clean nozzles, use the *Recommended Cleaning Procedure for Powder Contact Parts* in the *Maintenance* section.

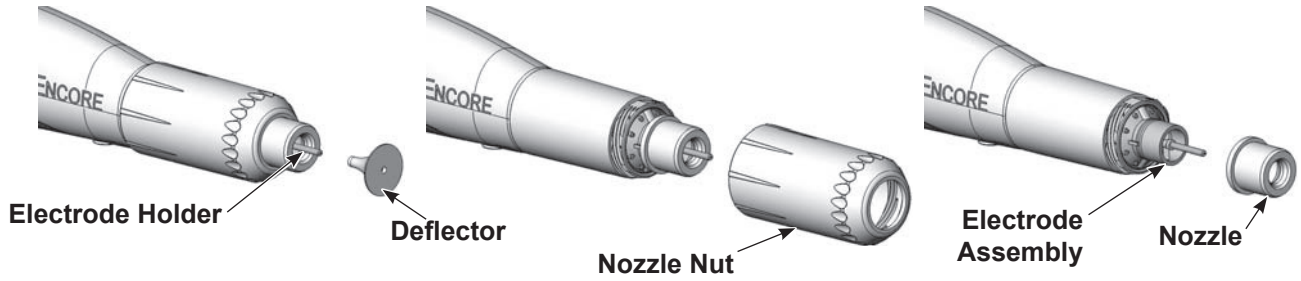


Figure 7 Changing a Conical Nozzle

Installing the Optional Pattern Adjuster Kit

WARNING: The electrode assembly is a sharp object. Use caution when electrode assembly is exposed to prevent personnel injury.

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. See Figure 8. 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.

NOTE: To clean the pattern adjuster, use the *Recommended Cleaning Procedure for Powder Contact Parts* in the *Maintenance* section.

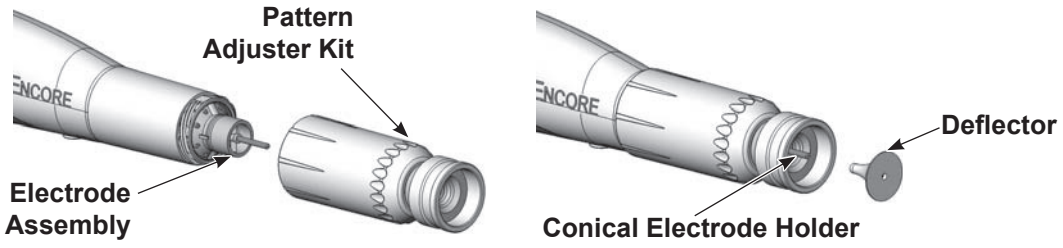


Figure 8 Pattern Adjuster Kit Installation

Shutdown

1. Purge the spray gun by pressing the purge trigger until no more powder is blown from the gun.
2. Follow the controller procedure to turn power OFF to the spray gun.
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, disconnect power to the controller.
5. Perform the *Daily Maintenance* procedures in the *Maintenance* section.

Maintenance

WARNING:

- Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation. Wear safety glasses to prevent personnel injury.
- 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.

CAUTION: 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 spray gun. Remove the O-rings. Blow off the parts with low-pressure compressed air.

CAUTION: 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.

CAUTION: 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

Perform the *Shutdown* procedure before performing these procedures.

Component	Procedure
Pump (Daily)	1. Disconnect the pump air hoses and remove the pump from the pickup tube. 2. Disassemble the pump and clean all parts using low-pressure compressed air. If impact fusion is present on the parts, use the *Recommended Cleaning Procedure for Powder Contact Parts* to remove it. 3. Replace any worn or damaged parts. Refer to the applicable pump manual for instructions and spare parts.
Spray Gun (Daily)	1. Point the spray gun into the booth and purge the spray gun. 2. Shut off the system air supply and power. 3. Disconnect the powder hose adapter and blow out the spray gun powder path. 4. Disconnect the powder hose at the pump. Place the gun end of the hose inside the booth and blow out the hose from the pump end. 5. Remove the nozzle and electrode assembly and clean them with low-pressure compressed air and clean cloths. If impact fusion is present on the nozzle parts, clean them using the *Recommended Cleaning Procedure for Powder Contact Parts*. Check the parts for wear and replace if necessary. 6. Clean the gun face surface (where the electrode assembly attaches) with low pressure compressed air and a clean cloth. 7. Blow off the spray gun and wipe it down with a clean cloth.
Vibratory Box Feeder Pickup Tube (Daily)	Disconnect the fluidizing air tubing. Pull the pickup tube out of the powder box and move it into the booth. Blow powder off all outer and inner surfaces using low-pressure compressed air.
Controller (Daily)	Blow off the cart and controller with a blow gun. Wipe powder off the controller with a clean cloth.
System Grounds	Daily: Make sure the system is securely connected to a true earth ground before spraying powder. Periodically: Check all system ground connections.

Troubleshooting

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

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 your contact Nordson technical support at (800) 433−9319 or your local Nordson representative for help.

Controller Faults

Refer to the system controller onscreen *Help* or the *Troubleshooting* section in the system controller manual for information related to fault codes displayed on the system controller.

General Troubleshooting Chart

Problem	Possible Cause	Corrective Action
1. Uneven pattern, unsteady or inadequate powder	Blockage in spray gun, powder hose, or pump	1. Purge the spray gun. Remove and clean the nozzle and electrode assembly. 2. Disconnect the powder hose from the spray gun. Blow out the spray gun with an air gun. 3. Disconnect the powder hose from the pump and gun and blow out the hose. Replace the hose if it is clogged with powder. 4. Disassemble and clean the pump. 5. Disassemble the spray gun. Remove and clean the inlet and outlet tubes and elbow. Replace components as necessary.
	Nozzle, deflector, or electrode assembly worn, affecting pattern	Remove and clean the nozzle, deflector, and electrode assembly. Replace worn parts as necessary. If excessive wear or impact fusion is a problem, reduce the flow and atomizing air.
	Damp powder	Check the powder supply, air filters, and dryer. Replace the powder supply if contaminated.
	Low atomizing or flow air pressure	Increase the atomizing and/or flow air flow.
	Improper fluidization of powder in hopper	Increase the fluidizing air pressure. If the problem persists, remove the powder from the hopper. Clean or replace the fluidizing plate if contaminated.
2. Voids in powder pattern	Worn nozzle or deflector	Remove and inspect the nozzle or deflector. Replace worn parts.
	Plugged electrode assembly or powder path	Remove and clean the electrode assembly. Remove and clean the spray gun powder path (inlet tube, elbow, and outlet tube) if necessary.
3. Loss of wrap, poor transfer efficiency	Low electrostatic voltage	Increase the electrostatic voltage.
	Poor electrode connection	Remove the nozzle and electrode assembly. Clean the electrode and check for carbon tracking or damage. Check the electrode resistance as shown in this section. If the electrode assembly is good, remove the gun power supply and check its resistance as shown in this section.
	Poorly grounded parts	Check the conveyor chain, rollers, and part hangers for powder buildup. The resistance between the parts and ground must be 1 megohm or less. For best results, 500 ohms or less is recommended.

Continued...

Problem	Possible Cause	Corrective Action
4. No kV output from the spray gun (kV=0), powder is spraying	Damaged gun cable	Perform the *Gun Cable Continuity Checks* in this section. If an open or short is found, replace the cable.
	Spray gun power supply shorted	Perform the *Power Supply Resistance Test* in this section.
5. No kV output from the spray gun (µA=0), powder is spraying	Spray gun power supply open	Perform the *Power Supply Resistance Test* in this section.
	Damaged gun cable	Perform the *Gun Cable Continuity Test* in this section. If an open or short is found, replace the cable.
6. No kV output and no powder output	Malfunctioning trigger switch or cable	Perform the *Gun Cable Continuity Test* in this section. If the cable and connections are good, replace the switch.
7. Powder build up on the electrode tip	Insufficient electrode air wash flow due to low input pressure or blockage in manifold orifice	Check input air pressure. Remove electrode air wash connector and check manifold orifice for blockage. Orifice size is 0.25−0.3 mm. Clean with an appropriate tool.
8. No purge air when gun purge switch is pressed down	Malfunctioning spray gun trigger switch or cable, or controller manifold purge solenoid valve; no air pressure, or kinked air tubing	Perform the *Gun Cable Continuity Test* in this section. If the cable is good, replace the trigger switch.

Continued...

Problem	Possible Cause	Corrective Action
9. Low powder flow or powder flow surging	Low supply air pressure	Input air must be greater than 4.1 bar (60 psi).
	Supply air filter plugged or filter bowl full—water contamination of controller	Remove the filter bowl and drain water/dirt. Replace the filter element if necessary. Clean the system, replace components as necessary.
	Flow air valve plugged	Remove the valve and check the manifold passages. If the manifold is clean, replace the valve.
	Air tubing kinked or plugged	Check the flow and atomizing air tubing for kinks.
	Pump throat worn	Replace the pump throat.
	Pump not assembled correctly	Check the pump.
	Pick-up tube blocked	Check for debris or bag (VBF units) blocking pick-up tube.
	Vibratory box feeder disabled (VBF units only)	Make sure the controller is configured for a VBF system. Refer to the *Configuration* instructions on the system controller.
	Fluidizing air too high	If fluidizing air is set too high the ratio of powder to air will be be too low.
	Fluidizing air too low	If fluidizing air is set too low the pump will not operate at peak efficiency.
	Powder hose plugged or kinked	Check for kinks in hose, blow out with compressed air.
	Powder hose too long or diameter too small	25-ft of 11-mm ID hose is shipped with the system. If using a longer hose, switch to 1/2 in. ID hose. Shorten the hose if necessary.
	Gun powder path plugged	Check the inlet tube, elbow, outlet tube, and electrode support for impact fusion or debris. Clean as necessary with compressed air.
	Flow and atomizing air tubing connections reversed	Check flow and atomizing air tubing routing and switch if incorrect.
10. Vibrator doesn't turn On and Off with the gun trigger	Controller configured for a hopper system	Make sure controller is configured for a VBF system.
11. VBF system− fluidizing air is on when the gun is triggered Off	Controller configured for a hopper system	Make sure controller is configured for a VBF system.
12. No kV when gun is triggered On, powder flow OK	kV set to zero	Set kV to a non-zero value.
13. No powder flow when gun is triggered On, kV OK	Flow Air set to zero	Change settings to a non-zero number.
	Input air turned OFF	Make sure air is being supplied to the controller.

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.

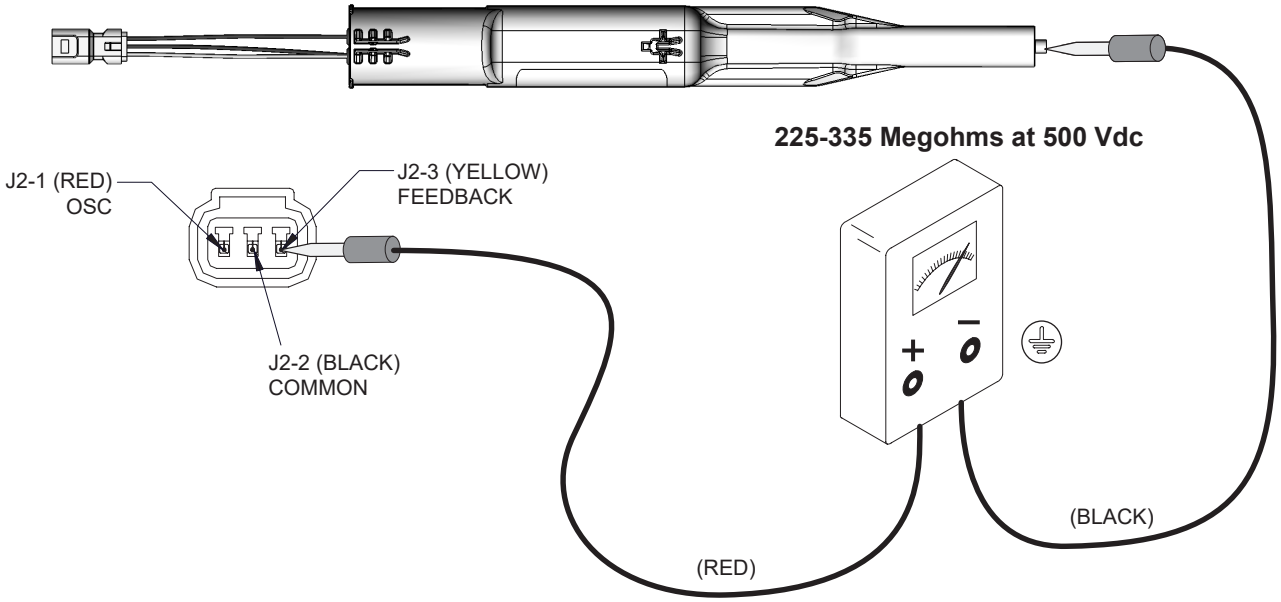


Figure 9 Power Supply Resistance Test

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.

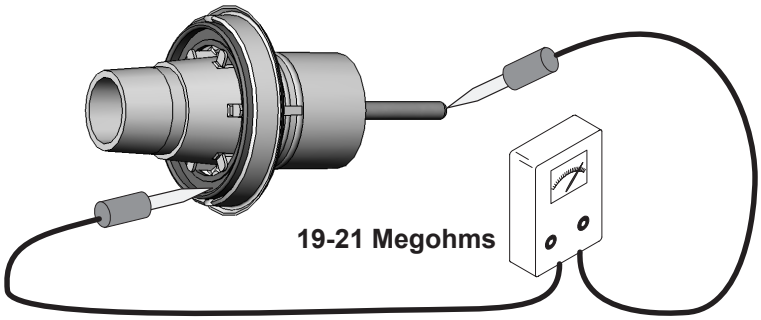


Figure 10 Electrode Assembly Resistance Test

Gun Cable Continuity Test

Test for continuity as follows:

- J1−1 and J3−2
- J1−2 and J2−2, J3−5
- J1−3 and J2−1
- J1−4 and J3−4
- J1−5 and J2−3
- J1−6 and J3−3, ground terminal

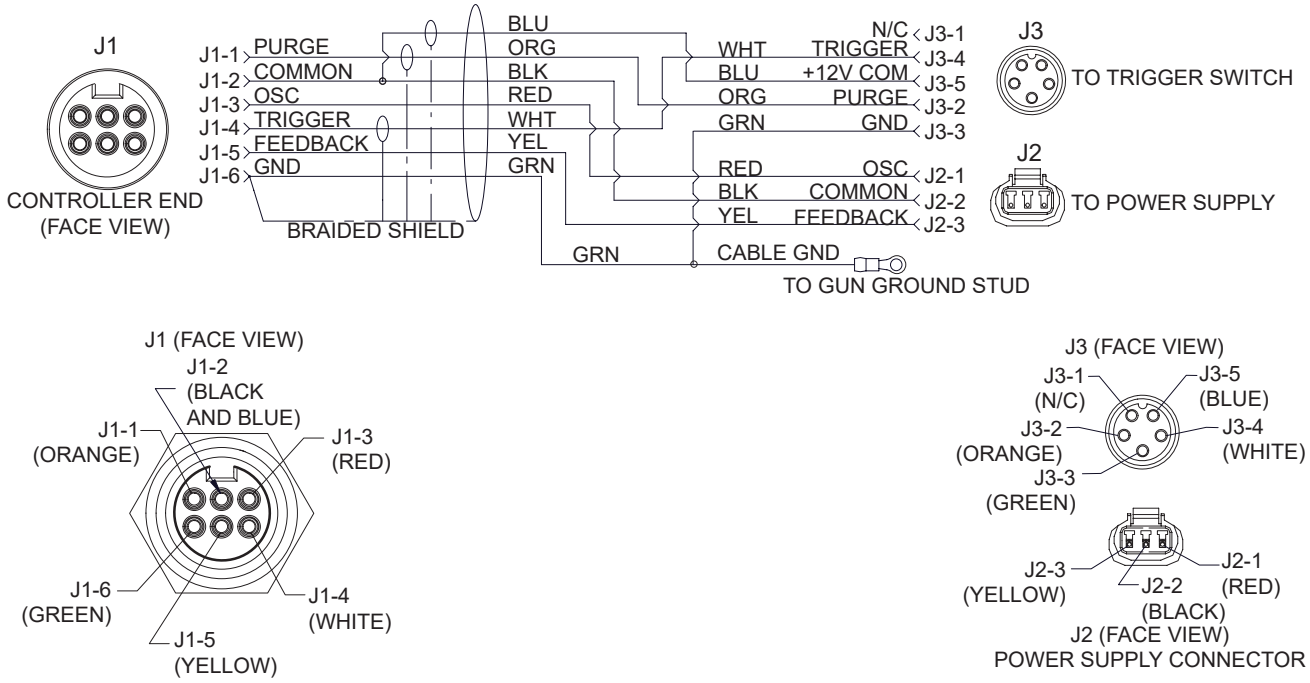


Figure 11 Gun Cable Wiring

Repair

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

NOTE: All item numbers in the spray gun repair illustrations are the same as the item numbers in the spray gun parts list.

Power Supply and Powder Path Replacement

Gun Disassembly

1. See Figure 12. Remove the nozzle nut (1), nozzle (2), and electrode assembly (3).
2. Remove the screws (11, 12) and hook (10), cover (8), and housing (9).
3. Pull the power supply harness out of the bulkhead, then insert a small flat-bladed screwdriver into the recess in the harness connector to release the catch. Disconnect the gun cable from the power supply harness.

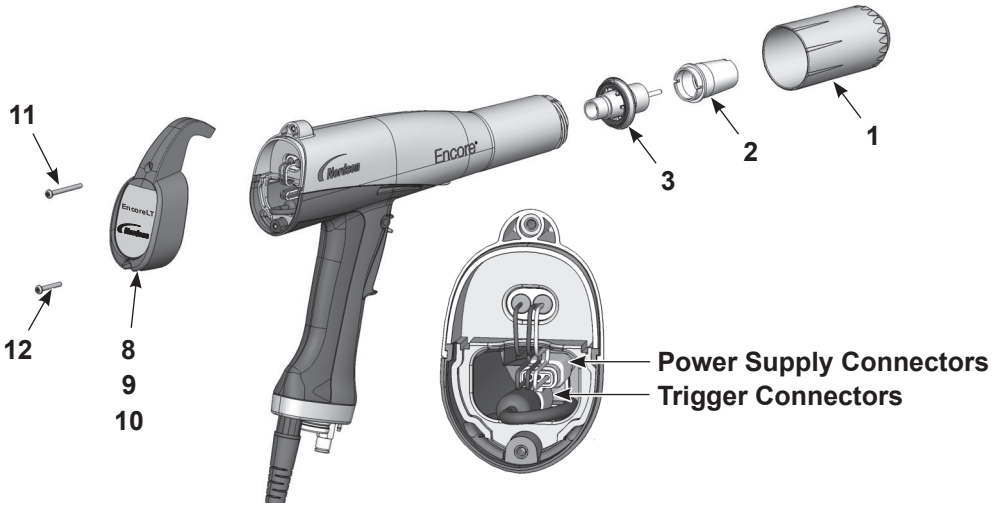


Figure 12 Gun Disassembly

1. Nozzle nut
2. Nozzle
3. Electrode assembly
8. Cover
9. Housing
10. Hook
11. M3 x 30 screw
12. M3 x 20 screw

4. See Figure 13. Remove the black nylon screw (22) 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 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.

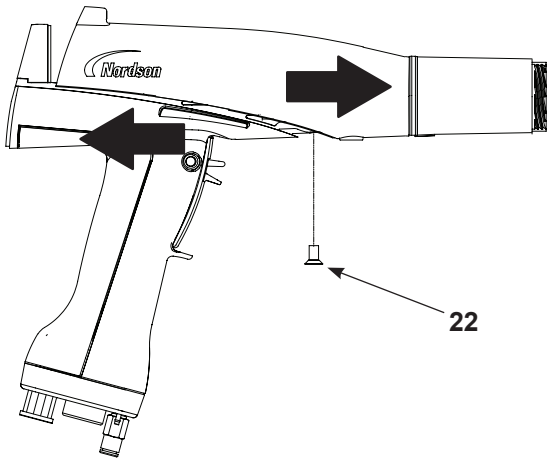


Figure 13 Removing the Gun Body from the Handle

22. Nylon screw

Power Supply Replacement

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

1. See Figure 14. Slide the power supply (5) out of the gun body.
2. Check the gasket (6) on the back of the bulkhead (7). Replace it if it is damaged. The gasket is attached 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.

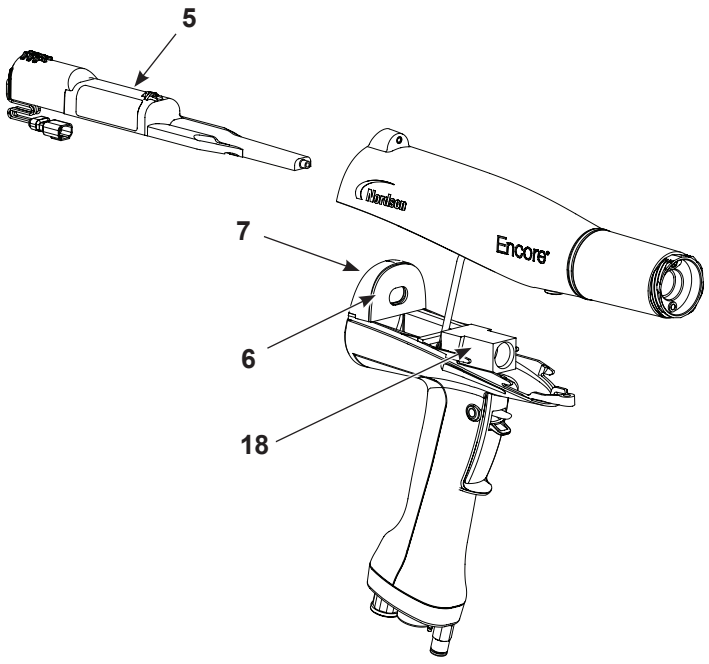


Figure 14 Removing the Power Supply from the Gun Body

5. Power supply
6. Gasket
7. Bulkhead
18. Elbow

Powder Path Replacement

NOTE: Skip these steps if not replacing the powder path. Refer to *Spray Gun Reassembly* in this section to reassemble the spray gun.

1. See Figure 15. Remove the elbow (18) from the inlet tube (25).
2. Remove the two M3 x 20 screws (12) from the handle base (27). Pull the base away from the handle, swing the bottom of the ground pad (15) up and away from the handle, then remove it. Leave the ground wire connected to the ground pad.
3. Push the inlet tube (25) up and out of the base, then move the base out of the way and pull the inlet tube out of the handle.
4. Push the outlet tube (4) out of the front of the gun body (13).
5. 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.

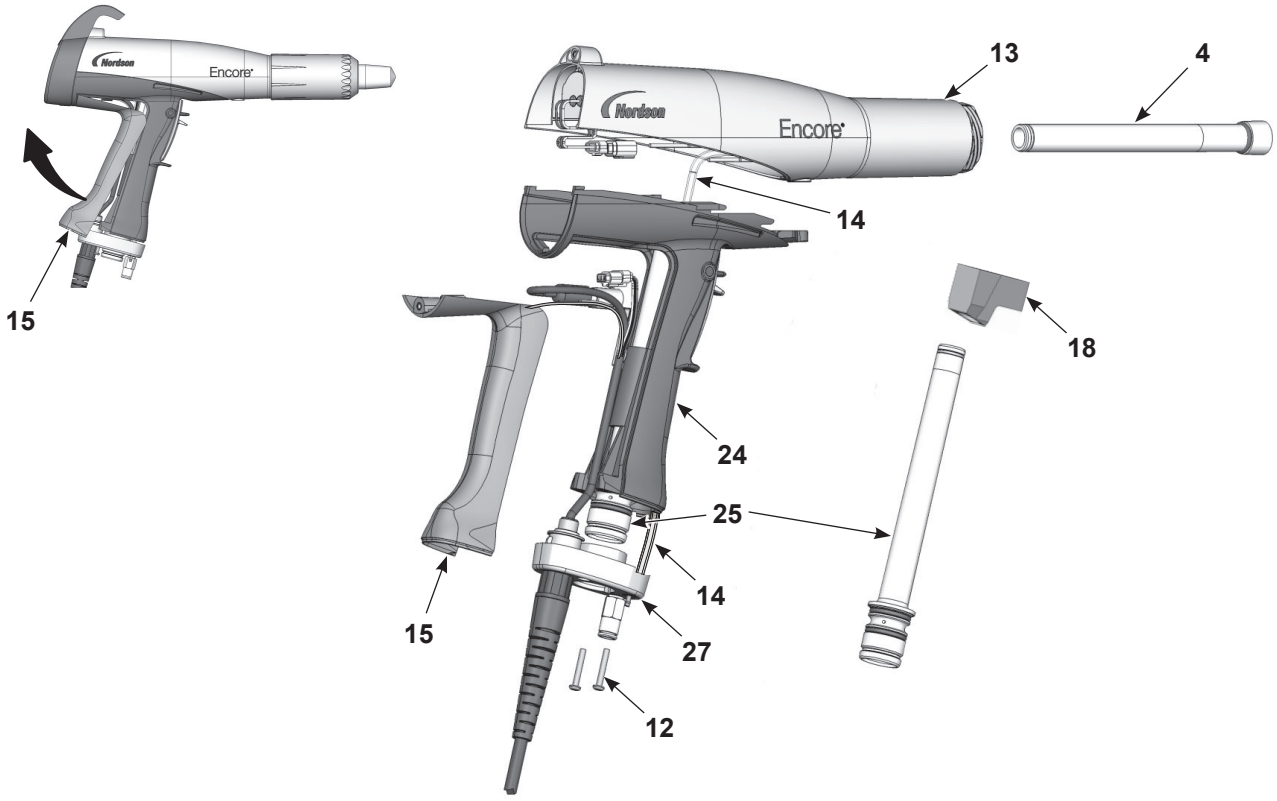


Figure 15 Powder Path Replacement

4. Outlet tube
12. M3 x 20 scews
13. Gun body
14. Air wash tubing
15. Ground pad
18. Elbow
24. Handle
25. Inlet tube
27. Handle base

Powder Path Installation

1. See Figure 15. Install the outlet tube (4) into the gun body (13), with the end of the tube flush with the end of the gun.
2. Install the inlet tube (25) into the handle (24), then install the end of the tube into the handle base (27).
3. Push the handle base close to the handle, then hook the top end of the ground pad (15) 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 (12).
5. See Figure 14. Install the elbow onto the inlet tube, with the end oriented toward the front of the gun as shown.

Spray Gun Reassembly

1. See Figure 14. 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 12. Install the cover (8), housing (9), and hook (10) as shown.
5. Install the electrode assembly (3) into the front of the gun body. Make sure the wire electrode is not bent or broken.
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 12. Remove the bottom screw (12) from the housing (9).
3. See Figure 16, View A. Loosen the two M3 x 20 screws (12) securing the handle base (27) to the handle.
4. Pull the base away from the handle enough to free the bottom edge of the ground pad (15) from the base.
5. Pull the bottom edge of the ground pad out and away from the handle.
6. See Figure 16, View B. Remove the M3 x 6 screw, lock washer (16, 17), and ground terminal from the ground pad.
7. Remove the E-ring (30) from the cable.
8. See Figure 16, View C. Pull the cable connectors out of the handle. Disconnect the power supply harness from the gun cable by inserting a small flat-bladed screw driver in the slot of the power supply harness connector to release the catch.
9. Carefully disconnect the round trigger connector from the trigger switch connector.
10. Pull the cable out of the handle base, feeding the connectors through the base one at a time.

Cable Installation

1. See Figure 16. Feed a new cable through the handle base (27), then install the E-ring (30) on the cable to hold it in place.
2. Connect the cable to the trigger switch and power supply.
3. Connect the cable terminal to the ground pad (15) with the M3 x 6 screw and lock washer (16, 17).
4. Tuck the cable connectors and ground wire into the gun, below the multiplier.
5. Hook the top of the ground pad (15) into the gun body, then rotate it into position on the handle.
6. Push the handle base (27) up against the handle and ground pad, and tighten securely the two M3 x 20 screws (12) in the base.
7. See Figure 12. Install the bottom M3 x 20 screw (12) in the housing (9) and tighten it securely.

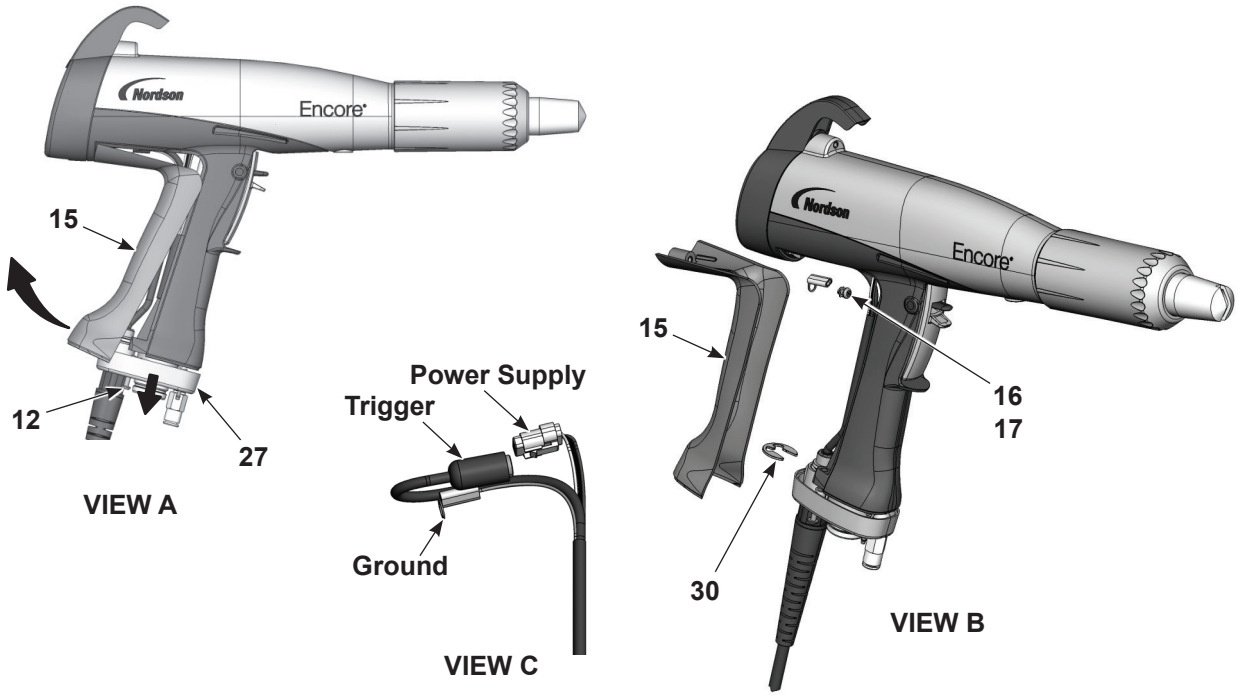


Figure 16 Cable Replacement

12. M3 x 20 screws
15. Ground pad
16. M3 x 6 screw
17. Lock washer
27. Handle base
30. E-ring

Trigger Switch Replacement

Switch Removal

1. See Figure 16. Remove the ground pad as described in *Cable Removal steps 1−5* . You do not have to disconnect the ground cable from the ground pad.
2. Pull out the round trigger connectors out of the handle and disconnect them.
3. See Figure 17. Place the spray gun on a solid surface so the small diameter end of the trigger axle (20A) is oriented updward.
4. Using a small, flat-ended punch or Allen key, apply light downward pressure to the small diameter end of the trigger axle (20A) and lightly tap to remove.
5. Remove the spray trigger (20), actuator, and purge trigger (19) from the handle.

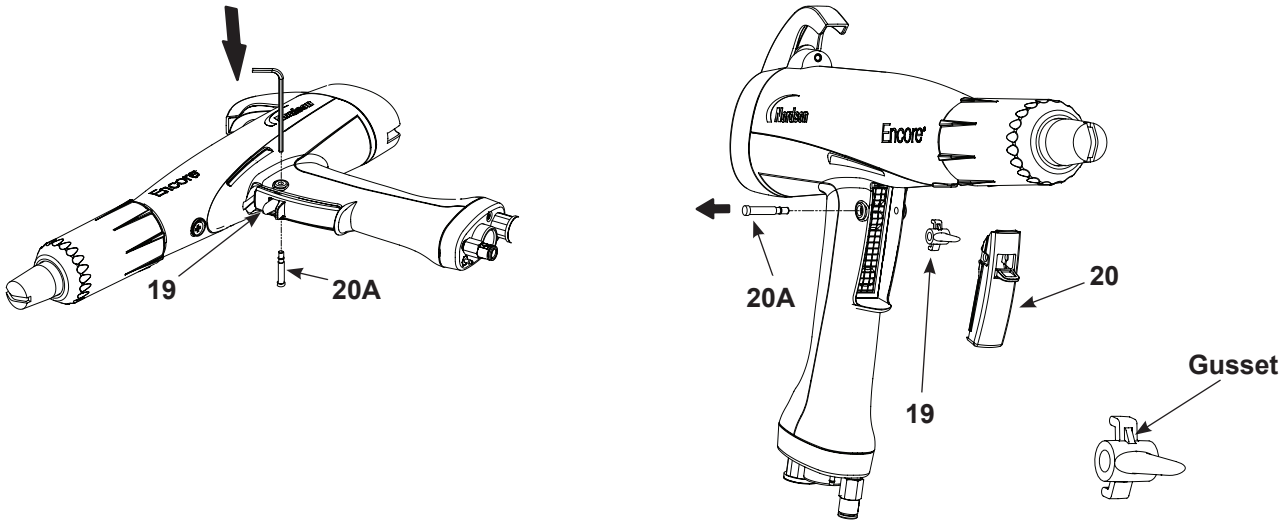


Figure 17 Removing the Axle and Trigger from Handle

19. Purge trigger/gusset
20. Spray trigger
20A. Trigger axle

6. See Figure 18. Insert a small flat-bladed screwdriver behind the clear pull tab at the top of the switch, then grasp the pull tab with a finger and gently pull it away from the handle.
7. To remove the switch, cut the ribbon cable, or feed the bottom of the switch through the slot in the trigger recess and remove it from the handle.

Figure 18 Removing the Trigger Switch from the Handle

Switch Installation

1. See Figure 19. Orient the new switch with the grid facing away from the inlet tube, then carefully feed the square, bottom end of the switch (23) around the left side of the inlet tube and through the slot in the trigger recess.
2. Peel off the small piece of tape holding the ribbon cable against switch.

Figure 19 Installing the Trigger Switch − Steps 1 and 2

3. See Figure 20. Straighten the ribbon cable, then bend the pull tab at the top of the switch so that it is perpendicular to the switch.

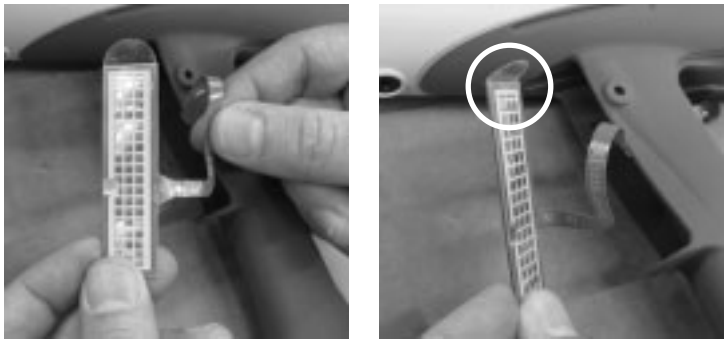


Figure 20 Installing the Trigger Switch − Step 3

4. See Figure 21. Peel the adhesive release liner from the switch.
5. Carefully install the switch, pull tab up, against the bottom and right edges of the trigger recess.
6. Make sure the ribbon cable is not trapped or pinched, then press 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.

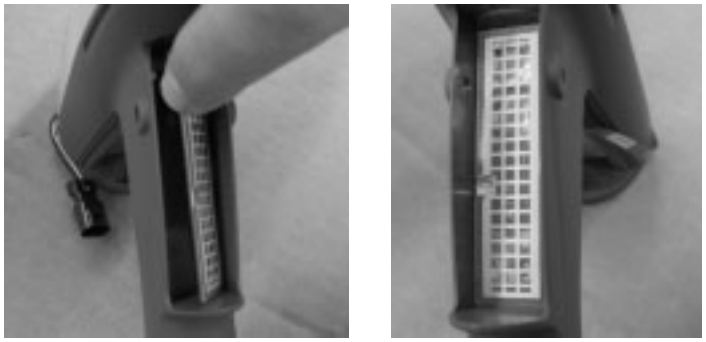


Figure 21 Installing the Trigger Switch − Step 4

7. See Figure 22. Install the purge trigger (19) into the spray trigger (20) with the gusset oriented upward as shown. **Do not install the purge trigger upside down.**
8. Verify that the actuator (21) is installed over the post.
9. Position the triggers in the handle and hold them in place while pressing the axle (20A) through the handle and triggers until the head of the axle is flushed with the handle. The axle will snap into place when properly installed.

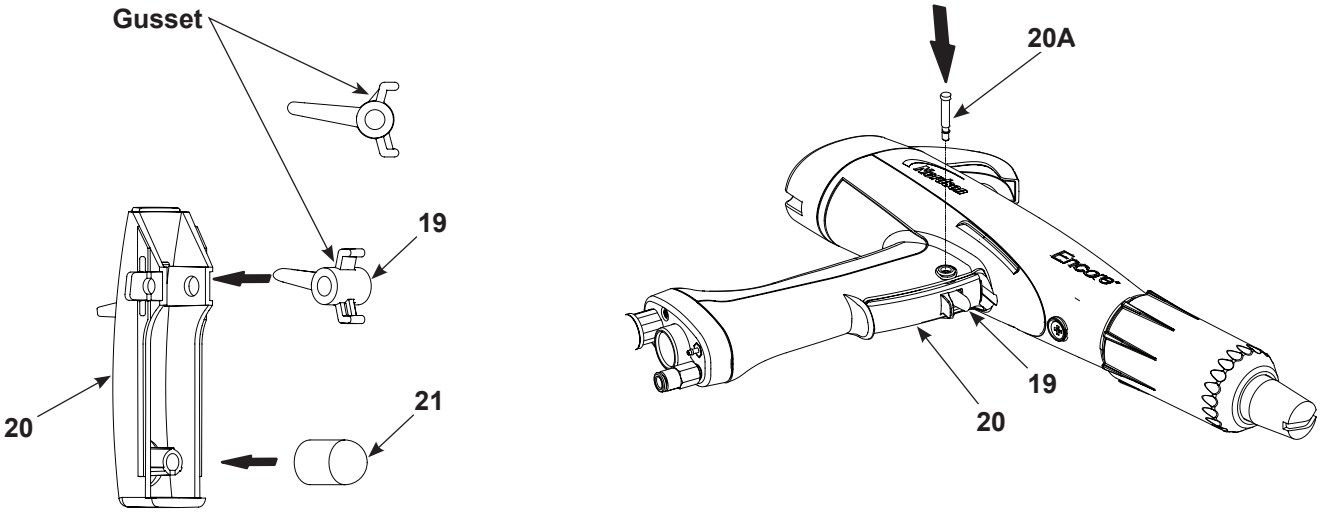


Figure 22 Reinstalling the Trigger and Axle

19. Purge trigger/gusset
20. Spray trigger
20A. Trigger axle
21. Actuator

10. Reconnect the trigger switch connector to the round cable connector, then tuck the connectors back up to the handle.
11. Reinstall the ground cover as described in *Cable Installation* steps 5−7 in this section.

Parts

Introduction

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

See Figure 23 and the following parts list.

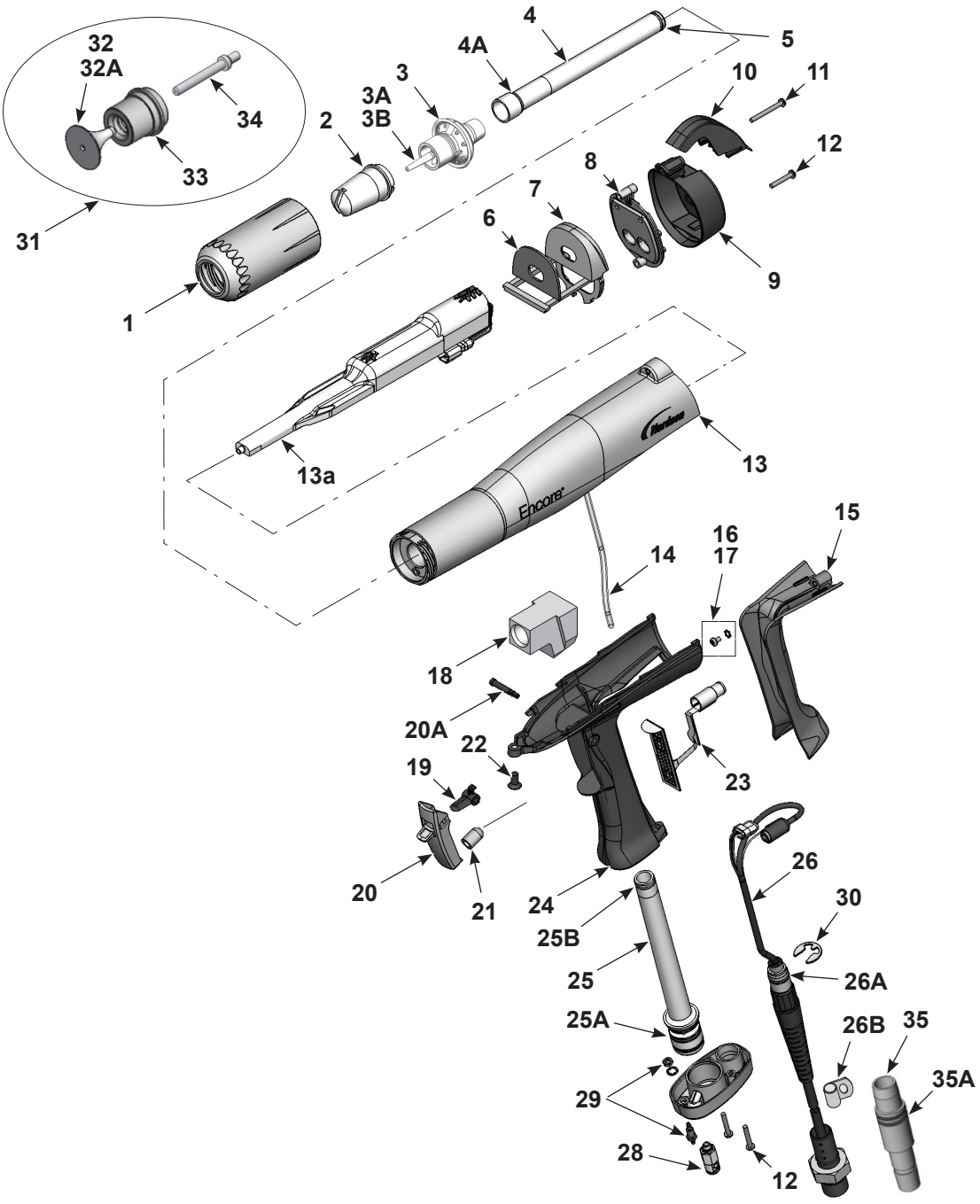


Figure 23 Exploded View of Encore LT Manual Spray Gun and Accessories

Encore LT Manual Spray Gun

Part	Description	Quantity	Note
1106893	MANUAL SPRAY GUN ASSEMBLY, Encore LT	1	

Electrode Assembly Kit

Item	Description	Quantity	Note
1604824 - ELECTRODE ASSEMBLY, Encore, flat spray		—	A
3	• SUPPORT, electrode, Encore	1	
3A	• ELECTRODE, spring contact	1	
3B	• HOLDER, electrode, M3, flat spray, Encore	1	A
NOTE: A. For flat spray nozzle use only. Use conical nozzle kit to convert for conical nozzle and deflector use.			

Powder Outlet Tube Kit

Item	Description	Quantity	Note
1085024 - KIT, powder outlet tube, Encore		—	A
4	• TUBE, powder outlet	1	
4A	• O-RING, -111, 0.438 x 0.625 x 0.094 in., silicone, 70 Duro	1	
5	• O-RING, 0.468 x 0.568 x 0.050 in., silicone, 70 Duro	1	
NOTE: A. Also available in wear resistant material. Refer to Spray Gun Options.			

Negative Power Supply/Gun Body Kits

Item	Description	Quantity	Note
1608280 - KIT, negative power supply/manual body, Encore		—	A
13	• BODY ASSEMBLY, Encore	1	
13a	• POWER SUPPLY, 100 kV, negative, Encore	1	
14	• FILTER ASSEMBLY	1	
1088506 - KIT, body assembly, Encore		—	
13	• BODY ASSEMBLY, Encore	1	
14	• FILTER ASSEMBLY	1	
NOTE: A. Application Specific: Order part number 1609053 if a positive power supply is needed. The positive power supply is sold separately from the gun body.			

Trigger Kits

Item	Description	Quantity	Note
1626492 - KIT, trigger, components, LT/PE		—	
19	• TRIGGER, setting	1	
20	• TRIGGER, main, spray gun, Encore Gen2	1	
20A	• AXLE, trigger, solid, spray gun, Encore	1	
21	• ACTUATOR, switch, trigger, Encore LT/XT	1	
22	• SCREW, flat head, recess, M5x 10, nylon	1	
23	• SWITCH, trigger, Encore	1	
1606999 - KIT, service, Encore trigger axle/trigger		—	
20	• TRIGGER, main, spray gun, Encore Gen2	1	
20A	• AXLE, trigger, solid, spray gun, Encore	1	
21	• ACTUATOR, switch, trigger, Encore LT/XT	1	
1108095 - KIT, trigger switch, Encore LT		—	
23	• SWITCH, trigger, Encore	1	

Powder Inlet Tube Kit

Item	Description	Quantity	Note
1085026 - KIT, powder inlet tube, Encore		—	
25	• TUBE, powder inlet, Encore	1	
25A	• O-RING, 18.0 x 22.0 x 2.0 mm, silicone, 70 Duro	2	
25B	• O-RING, 0.468 x 0.568 x 0.050 in., silicone, 70 Duro	1	

Cable Assembly

Item	Description	Quantity	Note
1106756 - CABLE ASSEMBLY, spray gun, manual, Encore LT, 6 meter		—	A
26	• CABLE, 7 wire with braided shield	1	
26A	• O-RING, -012, 0.375 x 0.500 x 0.063 in., conductive silicone, 70 Duro	1	
26B	• CLAMP, cable, 0.25 ID x 0.05 thick, white	1	
NOTE: A. Optional 6 meter extension available, refer to Spray Gun Options.			

Conical Nozzle Kits

Item	Description	Quantity	Note
1604828 - KIT, conical nozzle, Encore		—	
32	• DEFLECTOR ASSEMBLY, conical, 26 mm	1	A
32A	• O-RING, 3.0 x 5.2 x 1.1 mm, Viton, 75 Duro	1	B
33	• NOZZLE, conical	1	A
34	• HOLDER, electrode, M3, conical, Encore	1	
1083206 - DEFLECTOR ASSEMBLY, conical, 26 mm		—	
32	• DEFLECTOR ASSEMBLY, conical, 26 mm	1	A
32A	• O-RING, 3.0 x 5.2 x 1.1 mm, Viton, 75 Duro	1	B
1083205 - DEFLECTOR ASSEMBLY, conical, 19 mm		—	
32	• DEFLECTOR ASSEMBLY, conical, 19 mm	1	A
32A	• O-RING, 3.0 x 5.2 x 1.1 mm, Viton, 75 Duro	1	B

NOTE: A. 4-mm flat spray nozzle, conical nozzle and 19-mm/26-mm 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.

Hose Adapter Kit

Item	Description	Quantity	Note
1106200 - KIT, hose adapter, hose, handgun, Encore		—	
35	• ADAPTER, hose, Encore	1	
35A	• O-RING, black, 0.563 x 0.688 x 0.063, 10415, Viton, 75 +5 Duro	2	

Tubing

Item	Part	Description	Quantity	Note
NS	900617	• TUBE, polyurethane, 4 mm OD, clear	AR	A
NS	900741	• TUBING, polyurethane, 6/4 mm, black	AR	A
NS	900620	• TUBING, poly, spiral cut, 3/8 in. ID	AR	A

NOTE: A. Order in increments of one foot or one meter.

NS: Not Shown

Miscellaneous

Item	Part	Description	Quantity	Note
1	1081638	• NUT, nozzle, handgun	1	
2	1081658	• NOZZLE, flat spray, 4 mm	1	A
6	1088502	• GASKET, multiplier cover, handgun	1	
7	1106872	• BULKHEAD, multiplier, handgun, Encore LT/XT	1	
8	1087559	• COVER, housing, Encore	1	
9	1618782	• KIT, gun display housing	1	
10	1087760	• HOOK, handgun	1	
11	1078075	• SCREW, pan head, recessed, M3 x 30, zinc	1	
12	760580	• SCREW, Philips head, M3 x 20, zinc	3	
15	1106871	• HANDLE, ground pad, handgun, Encore LT/XT	1	
16	983520	• WASHER, lock, internal, M3, zinc	1	
17	982427	• MACHINE SCREW, pan head, recessed, M3 x 6, zinc	1	
18	1096695	• ELBOW, powder tube, handgun	1	B
19	1081540	• TRIGGER, purge, setting, handgun	1	
22	1088601	• SCREW, flat head, recess, M5x 10, nylon	1	
24	1106870	• HANDLE, handgun, Encore LT/PE	1	
27	1087762	• BASE, handle, handgun	1	
28	1081617	• CHECK VALVE, male, M5 x 6 mm	1	
29	1081616	• FITTING, bulkhead, barb, dual, 10−32 x 4 mm	1	
30	1081777	• RETAINING RING, external, 10 mm	1	

NOTE: A. 4-mm flat spray nozzle, conical nozzle and 19-mm/26-mm deflectors are shipped with the spray gun. Refer to the following pages for optional nozzles.

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

NS: Not Shown

AR: As Required

Spray Gun Options

Wear Resistant Powder Outlet Tube Kit

See Figure 23.

Item	Description	Quantity	Note
1096698 - KIT, powder outlet tube, Encore		—	
4	• TUBE, powder outlet, Encore, wear resistent	1	
4A	• O-RING, -111, 0.438 x 0.625 x 0.094 in., silicone, 70 Duro	1	
5	• O-RING, 0.468 x 0.568 x 0.050 in., silicone, 70 Duro	1	

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.

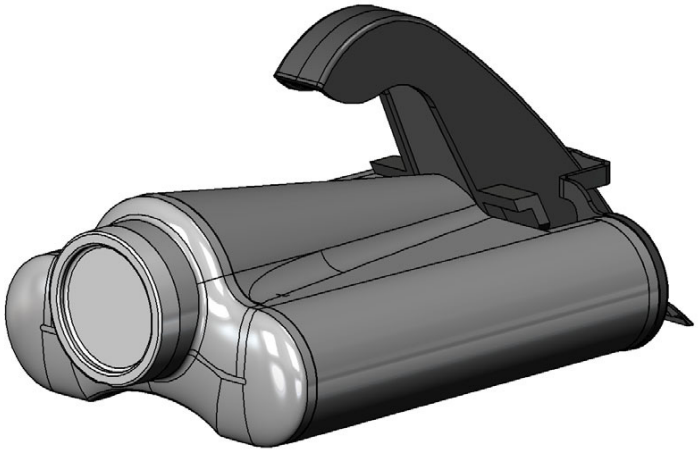


Figure 24 LED Inspection Kit

Part	Description	Quantity	Note
1611977	KIT, nLighten, LED, Encore	1	

Flat Spray Nozzles

The 4-mm flat spray nozzle is shipped with the spray gun. All other flat spray nozzles are optional.

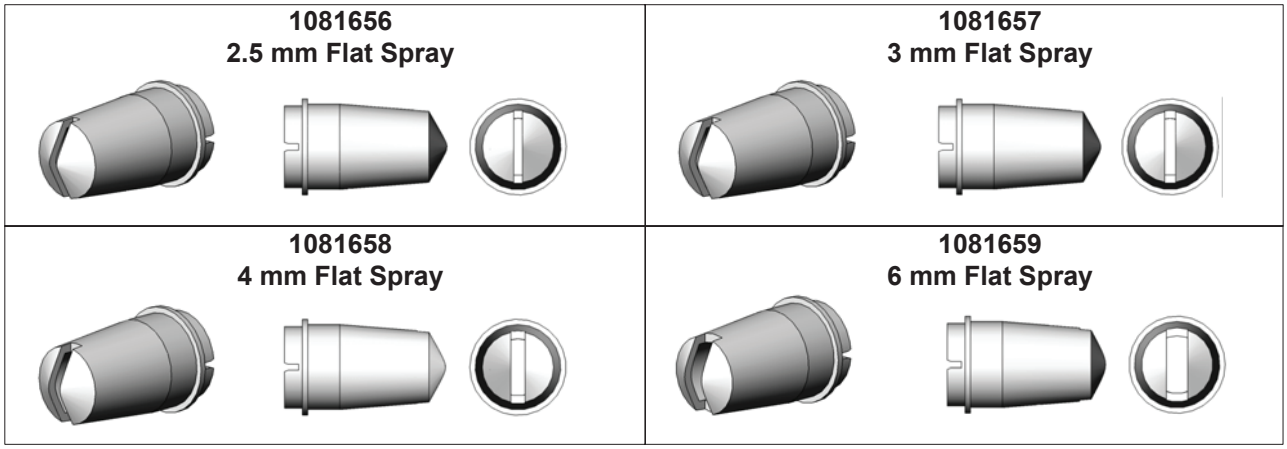


Figure 25 Flat Spray Nozzles

Cross-Cut Nozzles

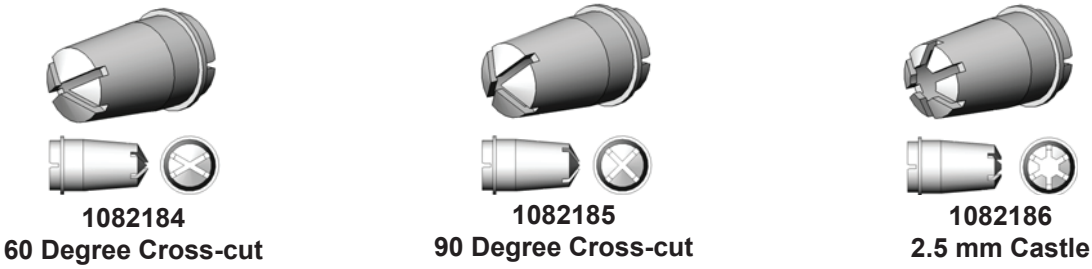


Figure 26 Cross-cut Nozzles

45-Degree Corner-Spray Nozzle

See Figure 27.

Spray Pattern	Wide fan pattern perpendicular to the spray gun axis
Slot Type	Angled, cross slot
Application	Flanges and recesses

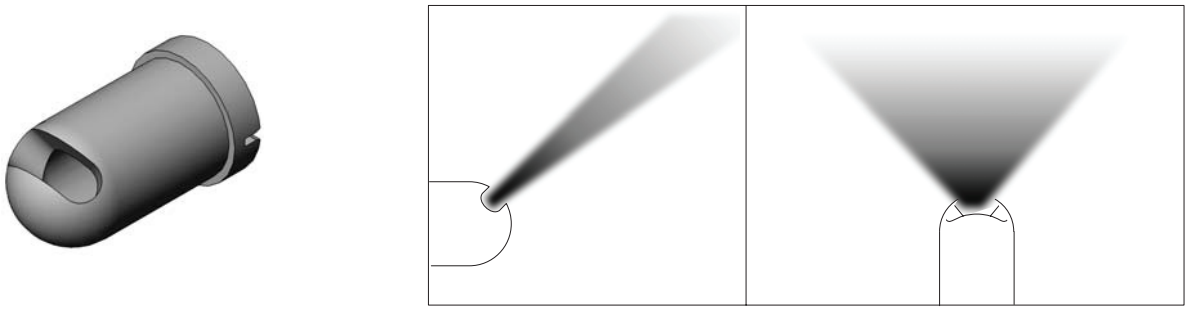


Figure 27 45-Degree Corner Spray Nozzle

Part	Description	Note
1102872	NOZZLE, corner spray, Encore	

5-Degree In-Line Flat-Spray Nozzle

See Figure 28.

Spray Pattern	Narrow fan pattern in-line with spray gun axis
Slot Type	Three angled slots in-line with spray gun axis
Application	Top and bottom coating; typically no in/out part positioning

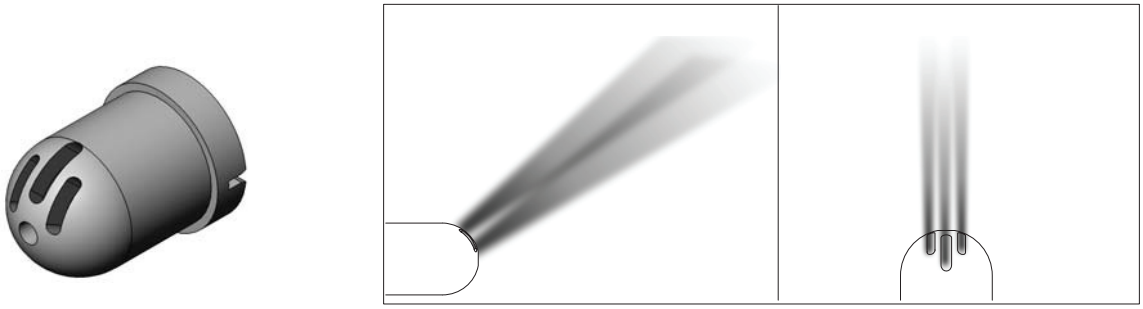


Figure 28 45-Degree Flat Spray Nozzle

Part	Description	Note
1102871	NOZZLE, 45 degree, flat spray, Encore	

Conical Nozzle, Deflectors and Electrode Assembly Parts

See Figure 29 thru Figure 31. 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 spray gun. All other parts are optional and must be ordered separately.

Conical Nozzle and Deflectors

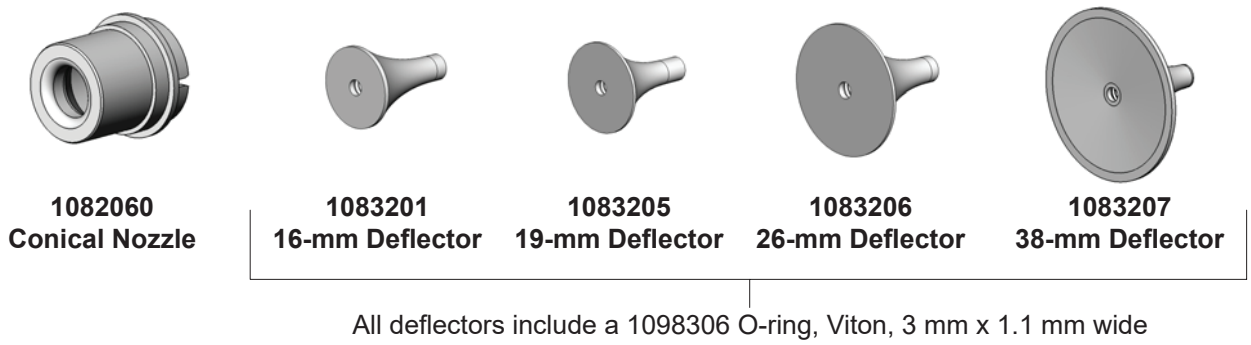


Figure 29 Conical Nozzle and Deflectors

Conical Nozzle Kit

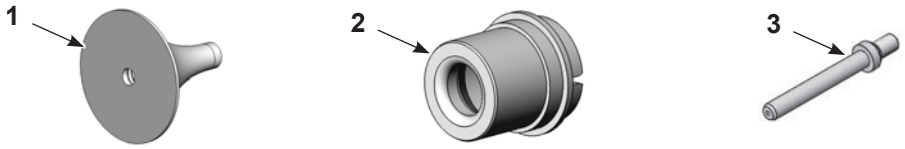


Figure 30 Conical Nozzle Kit

Item	Part	Description	Quantity	Note
—	1604828	KIT, conical nozzle, Encore	1	
1	1083206	• DEFLECTOR, 26 mm	1	
2	1082060	• NOZZLE, conical	1	
3	1605861	• ELECTRODE HOLDER, Conical	1	

Conical Electrode Assembly

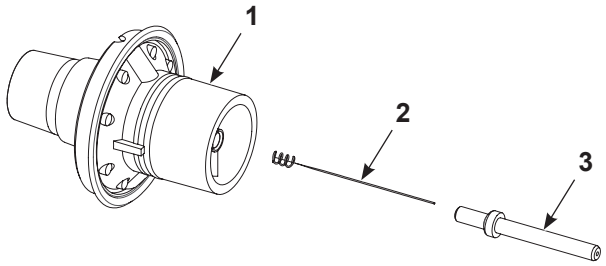
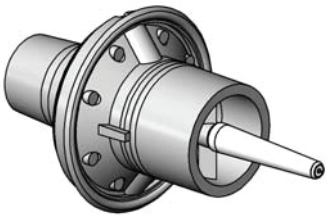


Figure 31 Conical Electrode Assembly

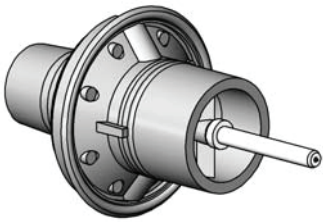
Item	Part	Description	Quantity	Note
—	1106076	ELECTRODE ASSEMBLY, conical, Encore	1	
1	------	• ELECTRODE SUPPORT	1	
2	1106078	• ELECTRODE	1	
3	1605861	• ELECTRODE HOLDER, Conical	1	

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.



1613834
XD Flat Spray Electrode Support



1613835
XD Conical Spray Electrode Support

Figure 32 Conical Spray and Flat Spray Electrode Supports

Pattern Adjuster Kits

The pattern adjuster kit for standard spray guns and lance extensions. The kit can be used with 16, 19, and 26-mm deflectors. Refer to the instruction sheet shipped with kit.

NOTE: Deflectors are not included with the kit and must be ordered separately.

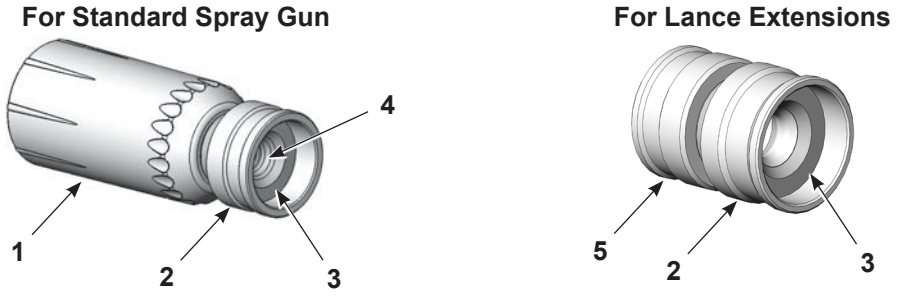


Figure 33 Pattern Adjuster Kit

Item	Description	Quantity	Note
1626501 - KIT, pattern adjuster, manual gun, Encore		—	
1	• NUT, nozzle, Encore	1	
2	• SLEEVE, outer, pattern adjuster, Encore	1	
4	• NOZZLE, conical, manual gun, Encore	1	
3	• SLEEVE, fixed, pattern adjuster, Encore	1	
5	• NOZZLE, conical, Encore lance extension	1	
NS	• O-RING, -023, 1.062 x 1.188 x 0.062, silicone, 70 Duro	2	

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.

Part	Description	Note
1609888	EXTENSION, lance, 150 mm, Encore	
1609889	EXTENSION, lance, 300 mm, Encore	
1609896	EXTENSION, lance, 450 mm, Encore	
1609897	EXTENSION, lance, 600 mm, Encore	

NOTE: The electrode support/holder for use with conical nozzles and deflectors must be used with a lance extension.

Ion Collector Kit

This kit installs on the standard length gun, lance extensions, and nLighten kits. Refer to the instruction sheet shipped with the kit for installation instructions and repair parts.

Item	Part	Description	Quantity	Note
—	1626508	KIT, universal,ion collector	1	

Miscellaneous Spray Gun Options

See Figure 23.

Item	Part	Description	Quantity	Note
18	1096696	ELBOW, powder tube, Encore, impact resistant	1	
NS	1085168	CABLE, 6 meter extension, shielded, Encore manual	1	
NS	1100777	KIT, cup gun, Encore	1	A
NOTE: A. Refer to the instruction sheet 1102764 shipped with the kit for instructions. NS: Not Shown				

Miscellaneous System Parts

Part	Description	Quantity	Note
1604487	VALVE, flow control, 4-mm tube x 4-mm tube	1	A
NOTE: A. Connect to air wash connector on controller rear panel to control air flow.			

Seepage 4

EU DECLARATION of Conformity

This Declaration is issued under the sole responsibility of the manufacture.

Product: Encore LT Automatic and Manual Powder Spray Systems

Models: Encore Automatic Applicator and Encore LT Automatic Controllers.
Encore LT Manual Applicator with Encore LT Manual Controller.

Description: The automatic electrostatic powder spray system includes applicator, Control cable and associated controllers. These Controls are available in a one applicator, dual applicator or a 4-8 applicator system. The manual powder electrostatic powder spray system includes applicator, control cable and associate controls. This is available in a stationery system, or in a mobile system.

Applicable Directives:
2006/42/EC – Machinery Directive
2014/30/EU – EMC Directive
2014/34/EU – ATEX Directive

Standards Used for Compliance:

EN/ISO12100 (2010)	EN60204-1 (2018)	EN61000-6-3 (2007)
EN IEC 60079-0 (2018)	EN50050-2 (2013)	EN61000-6-2 (2005)
EN60079-31 (2014)	EN50177 (2009 +A1:2012)	EN55011 (2009)

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

Type of Protection:
- Ambient Temperature: +15ºC to +40ºC
- Ex II 2 D / 2mJ = (Manual and Auto Applicators)/ Automatic Applicators are Type: A-P per EN50177
- EX II (2) 3 D = (Manual & Automatic Controllers)

Certificates:
- FM11ATEX0056X = (Applicators) (Dublin, Ireland)
- FM11ATEX0057X = (Controller) (Dublin, Ireland)

ATEX Surveillance
- 0598 SGS Fimko Oy (Helsinki, Finland)

Date: 10Oct2024

_____
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UK DECLARATION of Conformity

This Declaration is issued under the sole responsibility of the manufacture.

Product: Encore LT Automatic and Manual Powder Spray Systems

Models: Encore Automatic Applicator and Encore LT Automatic Controllers.
Encore LT Manual Applicator with Encore LT Manual Controller.

Description: The automatic electrostatic powder spray system includes applicator, Control cable and associated controllers. These Controls are available in a one applicator, dual applicator or a 4-8 applicator system. The manual powder electrostatic powder spray system includes applicator, control cable and associate controls. This is available in a stationery system, or in a mobile system.

Applicable UK Regulations:
Supply Machinery Safety 2008
Electromagnetic Compatibility Regulation 2016
Equipment & Protective Systems Intended for use in Potentially Explosive Atmosphere Reg 2016

Standards Used for Compliance:

EN/ISO12100 (2010)	EN IEC 60079-0 (2018)	EN61000-6-3 (2007)	EN55011 (2009)	EN60204-1 (2018)
EN50177 (2009)	EN60079-31 (2014)	EN61000-6-2 (2005)	EN50050-2 (2013)	

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

Type of Protection:
- Ambient Temperature: +15ºC to +40ºC
- Ex II 2 D / 2mJ = (Manual and Auto Applicators)/ Automatic Applicators are Type: A-P per EN50177
- EX II (2) 3 D = (Manual & Automatic Controllers)

Certificates:
- FM22UKEX0006X = (Applicators) (Maidenhead, Berkshire, UK)
- FM22UKEX0007X = (Controllers) (Maidenhead, Berkshire, UK)

EX Quality System Certificate
- SGS Baseefa NB 1180 (Buxton, Derbyshire, UK)

Date: 10Oct2024

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