

Encore[®] Automatic Powder Spray Guns

Customer Product Manual

Part 1098185-17

Issued 03/19

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

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Encore® Automatic Powder Spray Guns

Safety

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 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.

- 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 meg ohm 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, photo eye 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.

Description

Encore® automatic electrostatic powder spray guns are available in tube-mount or bar-mount versions. The 152.4 cm (5-ft) tube-mount gun is standard; an optional 182.8 cm (6-ft) tube-mount gun is available. The bar-mount gun includes a swivel mount that fits into the end of the optional gun bar.

The guns are equipped with a 100 kV integral voltage multiplier and electrode air-wash to prevent powder from collecting on the electrode. The guns have a straight-through powder path to minimize impact fusion and a quick-disconnect powder hose connector for quick color change.

The guns can be used with the Nordson iControl® system or Encore LT automatic controllers, which provide electrostatic voltage control, electrode air-wash air, and powder pump air.

Flat spray nozzles with 2.5 and 4-mm slots are shipped with the guns. Optional equipment includes:

- 8, 12, and 16-meter (26, 39, 52-ft) control cables
- Standard, pivoting, and fixed extrusion gun mounts for tube-mount guns
- Gun bar with 4-foot (121-cm) bar and clamp for 25-mm (1-in.) mounting bars
- Angled spray extensions
- Ion collector kit
- A variety of flat, conical, and cross-cut nozzles

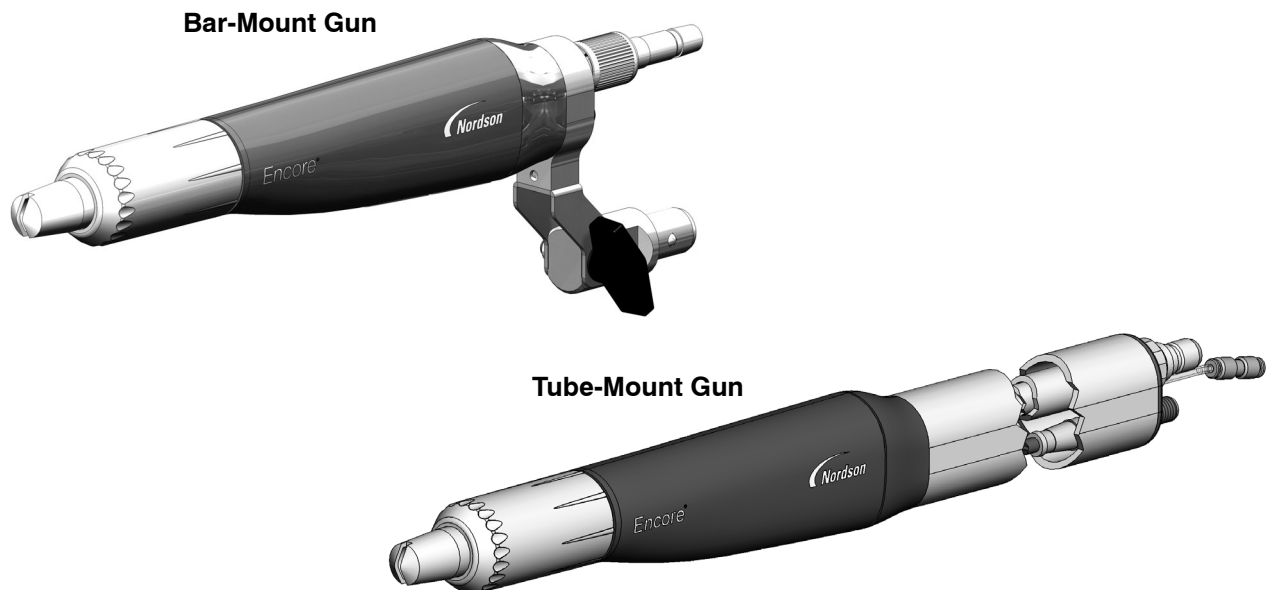


Figure 1 Bar-Mount and Tube-Mount Guns

Specifications

Input Rating	Output Rating
+/- 19 VAC, +/-1 A (Peak)	100 KV, 100 μ A

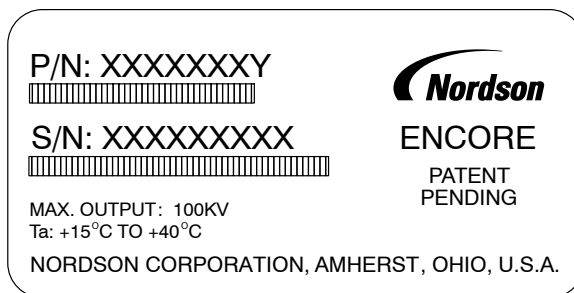
- Air Quality: <5 μ particulates, dew point <10 °C (50 °F)
- Max Relative Humidity: 95% non-Condensing
- Ambient Temperature Rating: +15 to +40 °C (59–104 °F)
- Hazardous Location Rating for Applicator: Zone 21 or Class II, Division 1

Specifications (contd)**Encore Automatic Spray Guns****Applicator Certification Label**

1098182

Serial Number Label

NOTE: The gun serial number contains the location, year, and month it was manufactured. The serial number starts with “AA10A”. The “AA” means the product was built in Amherst, Ohio, the “10” meaning the year 2010. The “A” means the month of January, “B” would be February, and so on.



1098182

Special Conditions for Safe Use

- The Encore automatic applicator shall only be used with the associated Encore LT controllers, Encore iControl 2, or Encore XT controllers over the ambient temperature range of +15°C to +40°C.
- The equipment must be installed in accordance with standard EN50177.
- When used with the Encore XT controllers, equipment may only be used in areas of low impact risk.
- Caution should be taken when cleaning plastic surfaces of the controllers. There is a potential for static electricity buildup on the components.

Dimensions and Weights

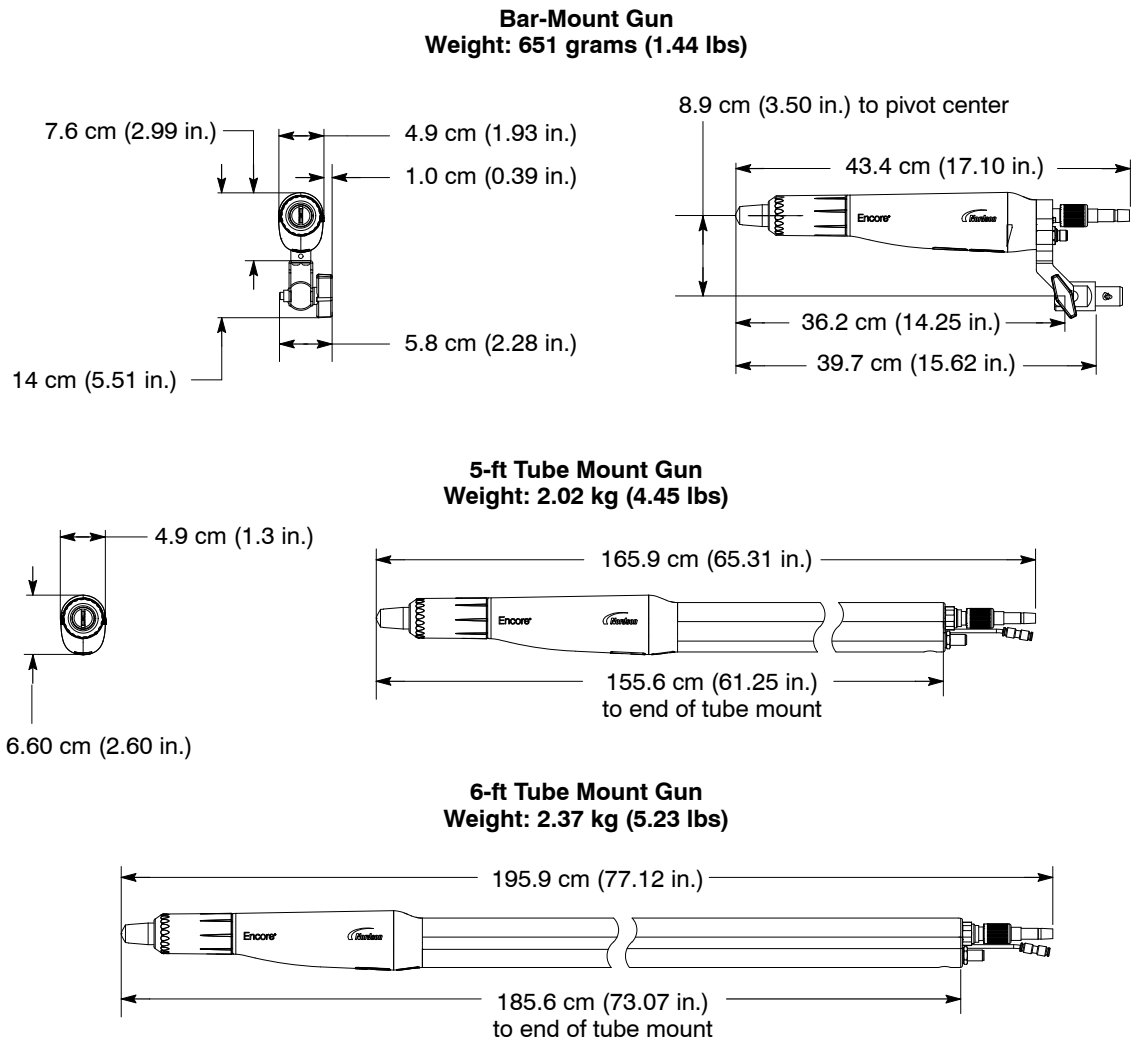


Figure 2 Encore Automatic Gun Dimensions and Weights

Installation

Tube-Mount Guns

See Figure 3. Mount the tube-mount gun on a fixed gun stand, oscillator, or reciprocator using one of the mounting kits as shown below. Refer to page 45 for the tube mount assembly part numbers.

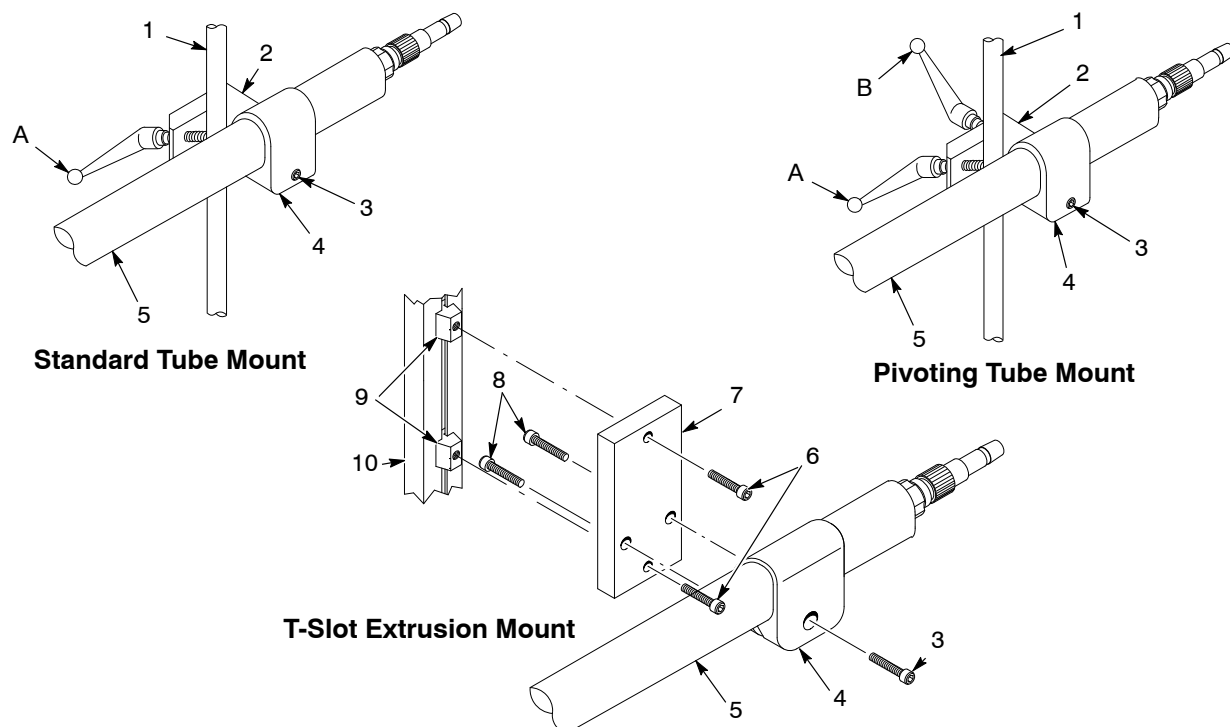


Figure 3 Tube-Mount Gun Mounting Assemblies

- | | | |
|---------------------------------|------------------------------------------|---------------------------------|
| 1. Mounting bar 25.4-mm (1-in.) | 5. Gun mounting tube | 9. T-slot nuts |
| 2. Clamp | 6. M8 x 30 screws | 10. T-slot extrusion (see Note) |
| 3. Clamping screw | 7. Support plate | A. Clamping handle |
| 4. Mounting sleeve | 8. $\frac{3}{8}$ -16 x 1-in. long screws | B. Pivot handle |

Note: Not included in kit.

Bar-Mount Guns

See Figure 4. Install the gun bar-mount adapter (3) into the end of the adjusting rod (9) and secure it by tightening the set screw (11) with a 4-mm hex key. Refer to page 47 for the gun bar part number.

- To move the gun tip from side to side, loosen the right button screw (1).
- To tilt the gun tip up or down, loosen the tilt knob (4).
- To rotate the adjusting bar on the locking body (8) axis or in the locking body, loosen the rotate handle (5).

Bar-Mount Guns (contd)

To mount the gun on a fixed gun stand, oscillator, or reciprocator, position the clamp (7) on a 1 inch mounting bar and tighten the clamp handle (6).

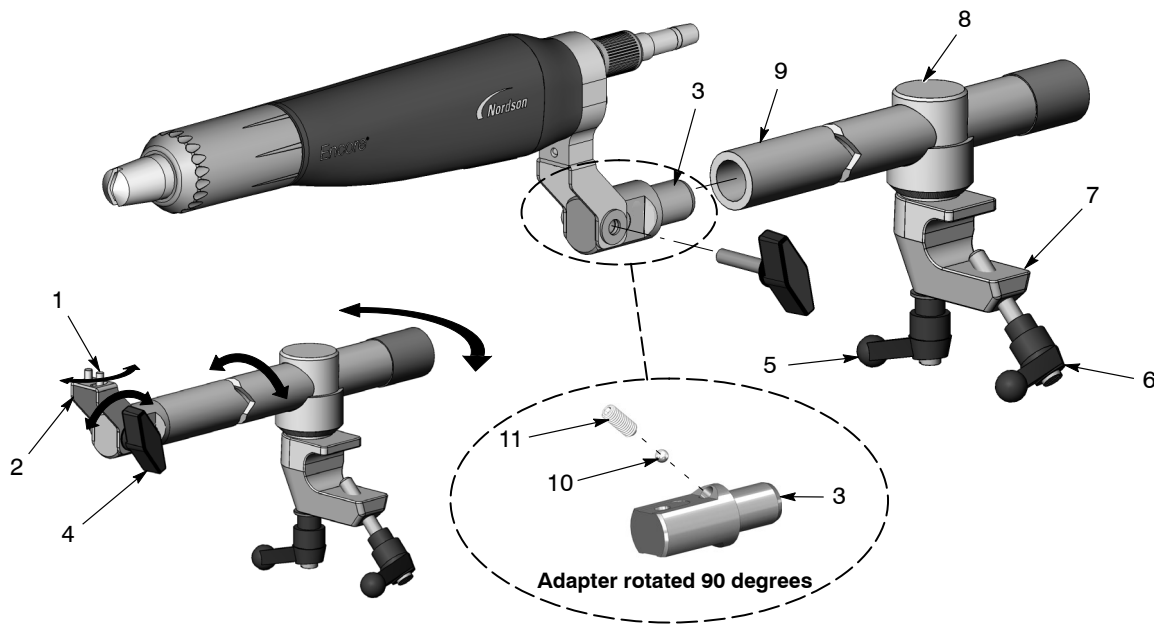


Figure 4 Bar-Mount Gun Mounting

- | | | |
|----------------------|------------------|------------------|
| 1. Button screws | 5. Rotate handle | 9. Adjusting rod |
| 2. Tilt bracket | 6. Clamp handle | 10. Ball |
| 3. Bar-mount adapter | 7. Clamp | 11. Set screw |
| 4. Tilt knob | 8. Locking body | |

Gun Connections

See Figure 5.

1. Connect the powder feed hose to the hose connector (2). The connector can be disconnected from the gun by unscrewing and pulling back on the retainer nut (1).
2. Connect 4-mm clear electrode air-wash tubing to the barbed fitting (3) (bar-mount gun) or tubing union (4) (tube-mount gun).
3. Connect the gun cable to the receptacle (5) and tighten the cable nut securely.

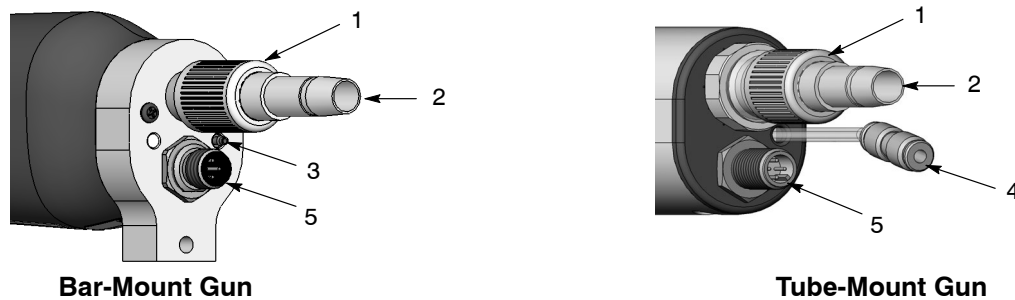


Figure 5 Gun Connections – Bar Mount and Tube-Mount Guns

- | | | |
|-------------------|------------------------|-------------------------|
| 1. Retainer nut | 3. Barbed fitting | 5. Gun cable receptacle |
| 2. Hose connector | 4. Tubing Union (4-mm) | |

Ion Collector Installation

The ion collector can improve the smoothness and appearance of cured powder coatings. It collects ions emitted from the gun's charging electrode instead of allowing them to deposit on the part. This reduces the rate of charge buildup in the powder deposited on the part, which may reduce defects in the cured coating such as pin-holing and orange peel.

Refer to page 48 in the Parts section for the kit part number.

The ion collector kit can be used on both the bar-mount and tube-mount guns. After installing the ion collector, adjust the collector rod position for best results as described in *Adjusting the Ion Collector Rod*.

Bar Mount Gun

1. See Figure 6. Insert the collector rod (1) into the grounding plate and secure it with the M5 x 8 set screw (6) included in the ion collector kit.
2. Attach the multi-point tip (7) to the collector rod with the M3 x 8 screw (8).

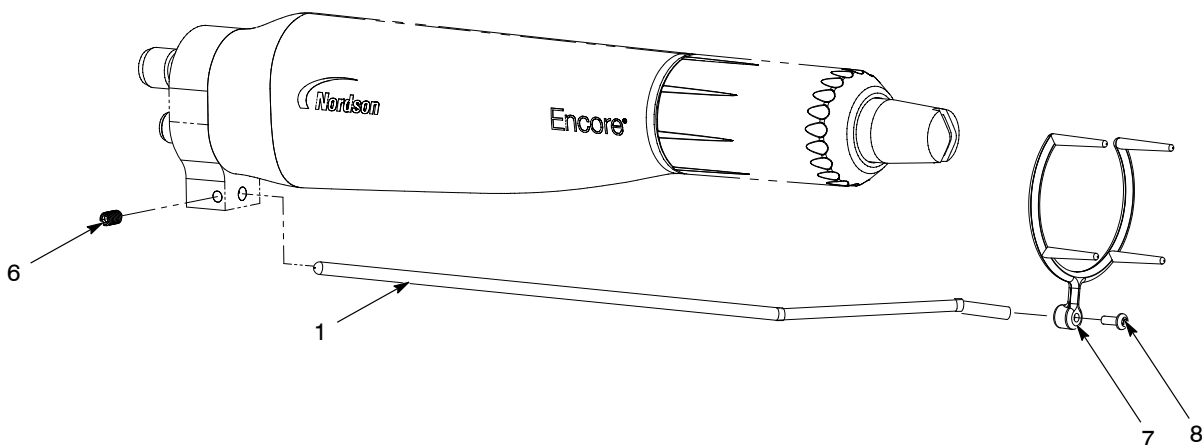


Figure 6 Ion Collector Installation – Bar Mount Gun

Tube-Mount Gun

NOTE: The mounting hole must remain plugged for optimal performance. If the ion collector is removed, replace it with the appropriate plug. The mounting plug part number is listed in the *Parts* section of this manual.

NOTE: The ion collector mounting hole must be installed towards the front of the gun as shown in Figure 7. If the ion collector hole is installed towards the far rear, it must be reversed to allow access to the grounding plate in the rear body assembly. Perform Steps 1–7 of the tube-mount dis-assembly procedure on page 26 to remove the tube, then turn it around and re-assemble the gun.

1. Remove the plug from the mounting hole (5) if applicable.
2. Secure the post (2) to the grounding plate with the socket head screw (3).
3. Insert the collector rod (1) into the post and secure it with the M10 x 10 nylon-tipped set screw (4).
4. Attach the multi-point tip (7) to the collector rod with the M3 x 8 screw (8).

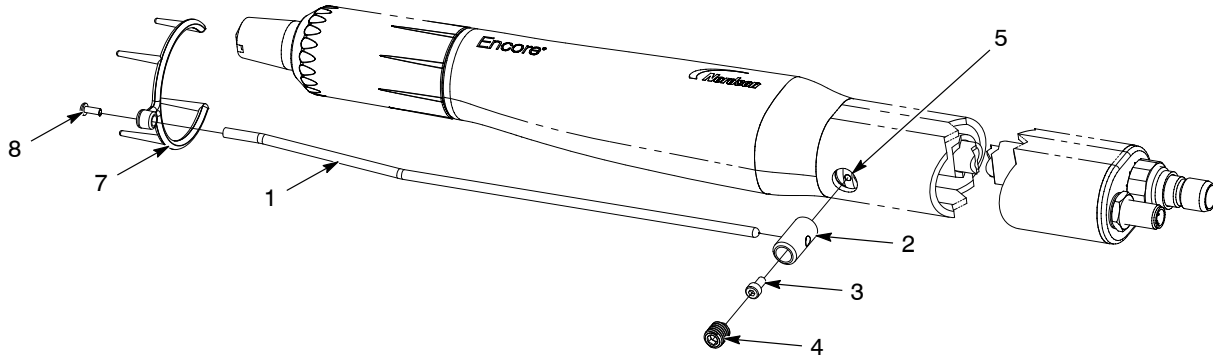


Figure 7 Ion Collector Installation – Tube Mount Gun

- | | | |
|----------------------|--------------------------------|--------------------------|
| 1. Collector rod | 4. M10 x 10 set screw | 7. Multi-point tip |
| 2. Post | 5. Ion collector mounting hole | 8. M3 x 8 pan-head screw |
| 3. Socket-head screw | 6. M5 x 8 set screw | |

Adjusting the Ion Collector Rod

The ion collector rod should be mounted so that the tip at the end of the rod is the optimum distance from the tip of the electrode for the application.

- If the tip at the end of the rod is too far away from the tip of the electrode, the ion collector will not collect any ions or improve the appearance of the cured coating.
- If the tip of the end of the rod is too close to the tip of the electrode, powder particles may not be charged efficiently and the powder transfer efficiency may be reduced.

Use this procedure to position the end of the ion collector rod.

1. Remove the rod and multi-tip point from the gun, then coat several parts. Note the current (μA) shown on the control unit display when coating the parts. Cure the coatings.
2. Install the rod and multi-point tip on the gun.
3. Loosen the set screw (4 or 6) and move the end of the rod far away from the front end of the gun.
4. Turn on the electrostatic voltage and spray powder with a part in front of the gun. Slide the rod forward until the current shown on the control unit display is 5 to 7 μA higher than that displayed in step 1. Tighten the set screw.
5. Cure the coating on the test parts. Compare the surface finish on these parts with the finish on the parts coated in step 1 (before the ion collector kit was installed).
6. If the desired improvement in the surface finish has not been obtained, loosen the set screw and slide the rod forward approximately 1-in. Tighten the set screw.
7. Repeat steps 5 and 6 until the desired improvement in surface finish is obtained.

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 in accordance with the rules laid down in this manual.

Automatic and manual control of electrostatic output, air-wash air flow, and pump air flow, are provided by the Nordson iControl system or the Encore LT automatic controllers. Gun triggering and positioning are provided by the iControl system, a Nordson axis controller, or a PLC supplied either by Nordson or the customer.

Refer to your controller manual for programming information and instructions.

Changing Flat Spray Nozzles



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

1. See Figure 8. Unscrew the nozzle nut (1) counterclockwise.
2. Pull the flat spray nozzle (2) off the electrode assembly (3).

NOTE: It is not necessary to remove the electrode assembly. If the electrode assembly comes out of the gun when you pull the nozzle off, clean it with compressed air before re-installing it. Do not bend the electrode. The electrode holder (3A) screws into the assembly. Both the holder and the electrode are replaceable.

3. Install a new nozzle on the electrode assembly, being careful not to bend the electrode. The nozzle is keyed to the electrode assembly.
4. Install the nozzle nut over the nozzle and screw it onto the gun body clockwise until the face of the nozzle nut bottoms against the shoulder of the gun body.

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.

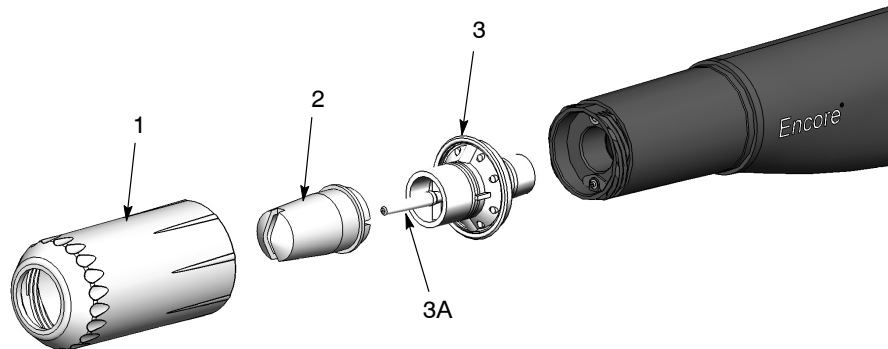


Figure 8 Flat Spray Nozzle Removal and Installation

Changing Optional Deflectors and Conical Nozzles



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

NOTE: The electrode holder shipped with the gun will need to be changed in order to accept the optional conical deflectors. See the Options section beginning on page 39 for the conical nozzle kit required for this conversion.

1. See Figure 9. To change the deflector (4), gently pull it off the electrode assembly (3). If only changing the deflector, install the new one on the electrode assembly, being careful not to bend the electrode wire.
2. To change the entire nozzle, unscrew the nozzle nut (1) counterclockwise.
3. Pull the conical nozzle (2) off the electrode assembly.

NOTE: It is not necessary to remove the electrode assembly (3) from the gun. If the electrode assembly comes out of the gun when you pull the nozzle off, clean it with compressed air before re-installing it. Do not bend the electrode. The electrode holder (3A) screws into the assembly. Both the holder and the electrode are replaceable.

4. Install a new conical nozzle on the electrode assembly. The nozzle is keyed to the electrode assembly.
5. Screw the nozzle nut onto the gun body until the face of the nozzle nut bottoms against the shoulder of the gun body.
6. Install a new deflector on the electrode assembly, being careful not to bend the electrode.

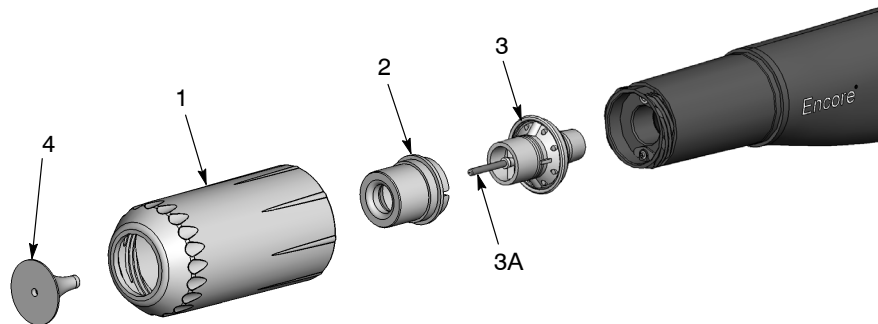


Figure 9 Changing Optional Deflectors and Conical Nozzles

Maintenance



WARNING: Turn off the electrostatic voltage and ground the gun electrode before performing the following tasks. Failure to observe this warning could result in a severe shock.

Daily Maintenance

NOTE: Depending on your application, you may not need to perform this procedure every day. If you regularly perform color changes with a powder feed center, the spray gun is purged internally each time a color change is performed. If this is the case, perform this procedure every 2–3 days.

See Figure 10.

1. Purge the spray guns, then shut them off.
2. Disconnect the powder feed hose (A) from the powder pump. Blow any remaining powder out of the powder feed hose and spray gun with an OSHA-approved, low-pressure air gun. Never blow air through the powder feed hose from the spray gun into the powder pump.
3. Unscrew the nozzle nut (1) and remove the nozzle (2).
4. Pull the electrode assembly (3) out of the gun.
5. Disconnect the powder feed hose from the gun by unscrewing the hose retainer nut (27), pulling back on the nut, and pulling the hose connector (26) off the powder tube.
6. Push the powder tube (5) toward the front of the gun, then pull the seal (4) and tube out of the front of the gun.

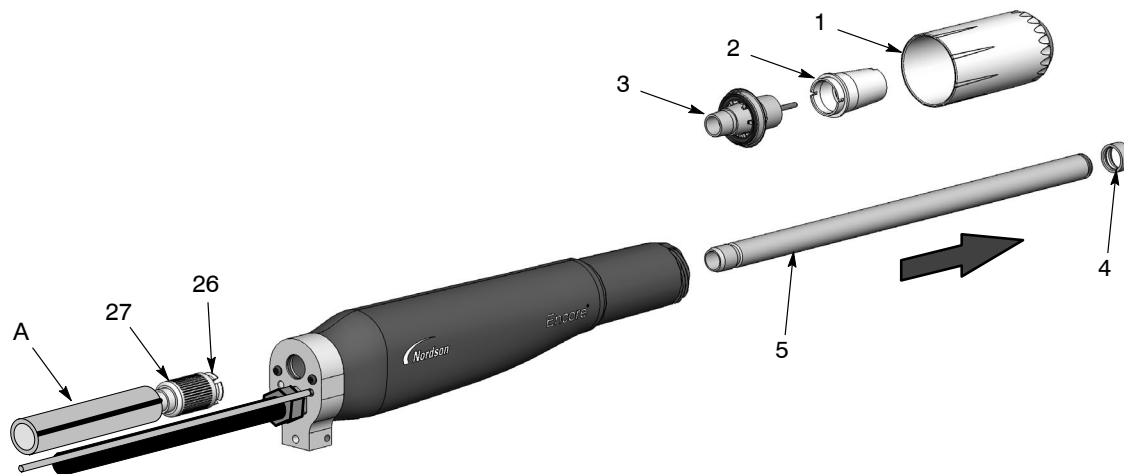


Figure 10 Maintenance – Bar-Mount Gun Shown without Pivot Mount

- | | | |
|-----------------------|--------------------|-----------------------|
| 1. Nozzle nut | 4. Seal | 27. Retainer nut |
| 2. Nozzle | 5. Powder tube | A. Powder feed tubing |
| 3. Electrode assembly | 26. Hose connector | |

Daily Maintenance *(contd)*

7. Clean all parts removed with a low-pressure blow gun. Wipe the parts with a clean, dry cloth.
8. Carefully remove any fused powder with a wooden or plastic dowel or similar tool. Do not use tools that will scratch the plastic. Powder will build up and impact-fuse on scratches.

NOTE: If necessary, use a cloth dampened with isopropyl or ethyl alcohol to clean the parts. Remove O-rings and seals before cleaning the parts with alcohol. Do not immerse the spray gun in alcohol. Do not use any other solvents.

9. Inspect the powder tube, seal, electrode assembly, and nozzle for wear. Replace worn or damaged parts.
10. Install the seal on the end of the powder tube if removed.
11. Install the powder tube into the gun until the seal bottoms out in the front of the gun.
12. Install the electrode assembly in the gun, so that the end of the electrode assembly slides into the seal on the end of the powder tube.
13. Install the nozzle on the electrode assembly and secure it with the nozzle nut. If used, install the deflector onto the electrode assembly.

Troubleshooting



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

These troubleshooting procedures cover only the most common problems. Refer to the iControl Hardware Manual for control-related problems. If you cannot solve a problem with the information provided in these manuals, contact your local Nordson representative for help.

NOTE: iFlow® modules are used in the iControl controller to control pump air flow. Refer to your iControl manuals for problems related to iFlow modules.

General Troubleshooting Chart

Problem	Possible Cause	Corrective Action
1. Uneven pattern, unsteady or inadequate powder flow	Blockage in spray gun, powder feed hose, or pump	1. Purge the spray gun. Remove the nozzle and electrode assembly and clean them. 2. Disconnect the powder feed hose from the spray gun and blow out the powder tube with an air gun. 3. Disconnect the feed hose from the pump and gun and blow out the feed hose. Replace the feed hose if it is clogged with powder. 4. Disassemble and clean the pump.
	Nozzle, deflector, or electrode assembly worn, affecting pattern	Remove, clean, and inspect the nozzle, deflector, and electrode assembly. Replace worn parts as necessary. If excessive wear or impact fusion is a problem, reduce the flow rate and atomizing air flow.
	Damp powder	Check the powder supply, air filters, and dryer. Replace the powder supply if contaminated.
	Low pump air flow/pressure	Adjust pump air flow/pressure.
	Improper fluidization of powder in feed hopper	Increase the fluidizing air pressure. If the problem persists, remove the powder from the hopper. Clean or replace the fluidizing plate if contaminated.
	iFlow module out of calibration	Perform the re-zero procedure in the iControl hardware manual.
Continued...		

Problem	Possible Cause	Corrective Action
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 the electrode assembly and clean it. Remove powder path if necessary and clean it.
	Electrode air-wash flow too high	Air-wash flow is controlled by a fixed orifice. Refer to your controller manual for more troubleshooting information.
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 on page 22. If the electrode assembly is good, remove the gun power supply and check its resistance as shown on page 22.
	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.
4. No kV output from the spray gun (display shows 0 kV when gun triggered), but powder is spraying	Damaged gun cable	Perform the <i>Gun Cable Continuity Checks</i> on page 22. If an open or short is found, replace the cable.
	Spray gun power supply shorted	Perform the <i>Power Supply Resistance Test</i> on page 21.
5. No kV output from the spray gun (interface shows kV output) but powder is spraying	Spray gun power supply open	Perform the <i>Power Supply Resistance Test</i> on page 21.
	Damaged gun cable	Perform the <i>Gun Cable Continuity Test</i> on page 22. If an open or short is found, replace the cable.
6. Powder build up on the electrode tip	Insufficient electrode air-wash flow	Air-wash flow is controlled by a fixed orifice. Check the air-wash tubing, and check for flow at the output fitting when the gun is triggered on. Refer to your controller manual for more troubleshooting information.
Continued...		

Problem	Possible Cause	Corrective Action
7. Low powder flow or powder flow surging	Low supply air pressure	iControl console air supply pressure must be greater than 5.86 bar (85 psi). Encore LT automatic controllers require 4.0–7.6 bar (58–110 psi).
	iFlow module air pressure regulator set too low	Adjust the iControl regulator to 5.86 bar (85 psi). Refer to the <i>iFlow Air Flow Verification Kit</i> instruction sheet.
	Supply air filter plugged or filter bowl full – water contamination of flow controller	Remove bowl and drain water/dirt. Replace filter element if necessary. Clean system, replace components if necessary.
	iFlow module flow valve or Encore LT flow valve plugged	Refer to your controller manual.
	Air tubing kinked or plugged	Check flow and atomizing air tubing for kinks.
	Pump throat worn	Replace pump throat.
	Pump not assembled correctly	Check and re-assemble pump.
	Pick-up tube blocked	Check for debris or bag (VBF units) blocking pick-up tube.
	Fluidizing air too high	If fluidizing air is set too high the ratio of powder to air will 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	Blow out powder hose with compressed air.
	Powder hose kinked	Checked for a kinked powder hose.
	Powder hose too long	Shorten hose.
	Gun powder path plugged	Check hose connector, powder tube, and electrode support for impact fusion or debris. Clean as necessary with compressed air.
	Flow and atomizing air tubing reversed	Check flow and atomizing air tubing routing and correct if incorrect.
8. No KV when gun is triggered ON, powder flow OK	KV set to zero	Change KV to a positive value.
	Check the Alarm screen for messages.	Refer to your controller manual for troubleshooting procedures.
9. No powder flow when gun is triggered ON, kV OK	Total air set to zero	Change the total flow to a positive value.
	Input air turned OFF	Check the iControl console air supply.
10. Gun flow % does not increment, always 0	Total air set to zero	If the total air is set to zero the flow percent cannot be adjusted. Change the total flow to a positive value.

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.

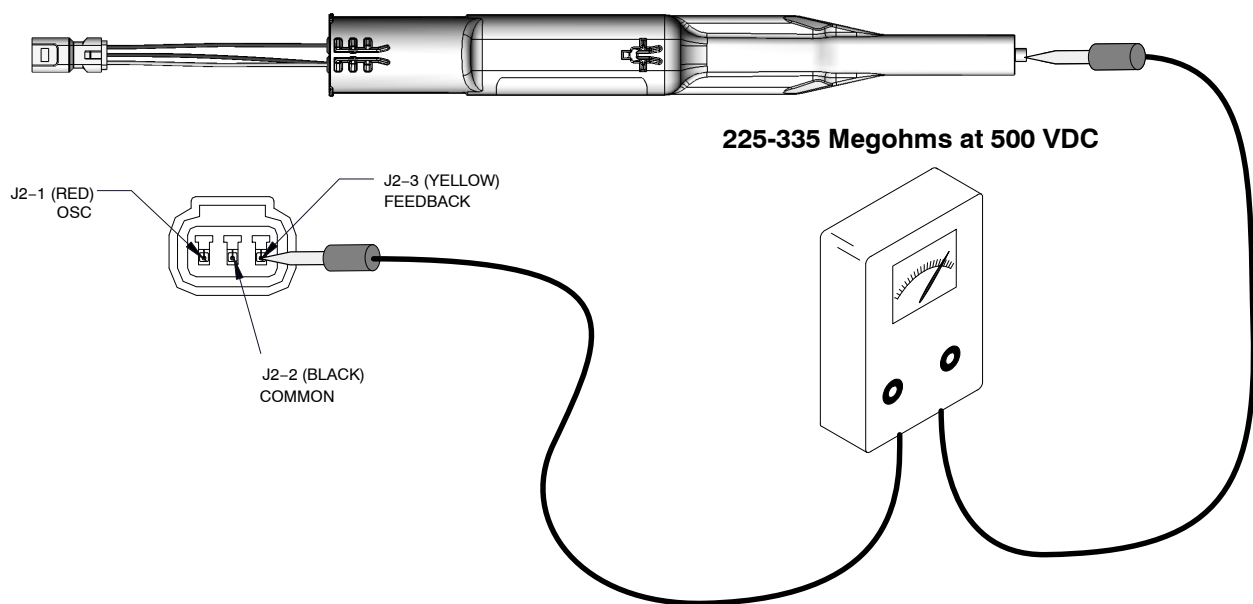


Figure 11 Power Supply Resistance Test

Electrode Assembly Resistance Test

Use a meg ohm 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 meg ohms. If the resistance is out of this range replace the electrode assembly.

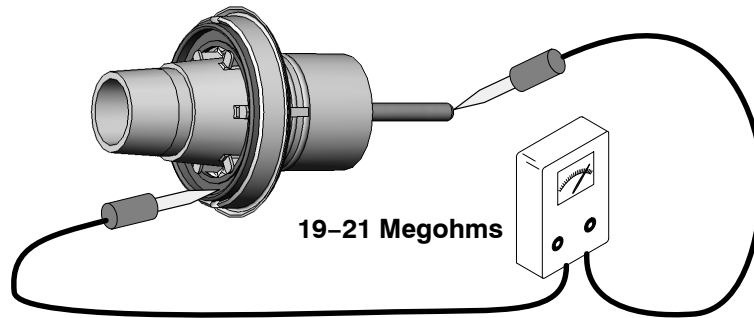


Figure 12 Electrode Assembly Resistance Test

Cable Continuity Tests

Use a standard ohmmeter to check the gun cables and harness for continuity.

Gun Receptacle Harness

This harness is used on both the bar-mount and tube-mount guns to connect the power supply (voltage multiplier) to the extension cable (tube-mount gun) or gun cable.

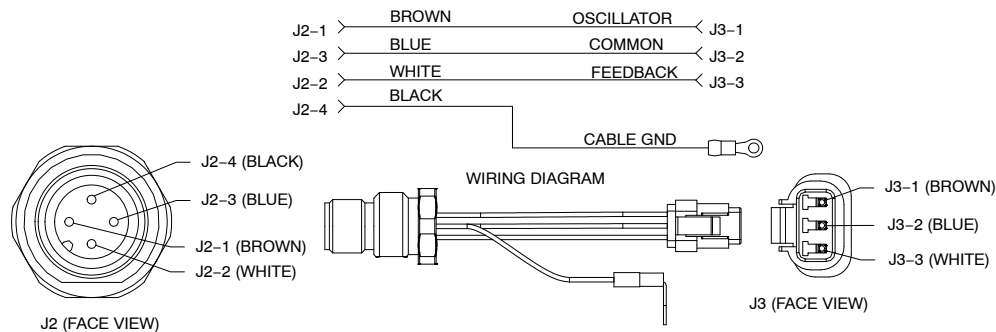


Figure 13 Gun Receptacle Harness

Gun Extension Cable

This cable is used in the tube-mount gun only, between the rear body assembly and the end cap.

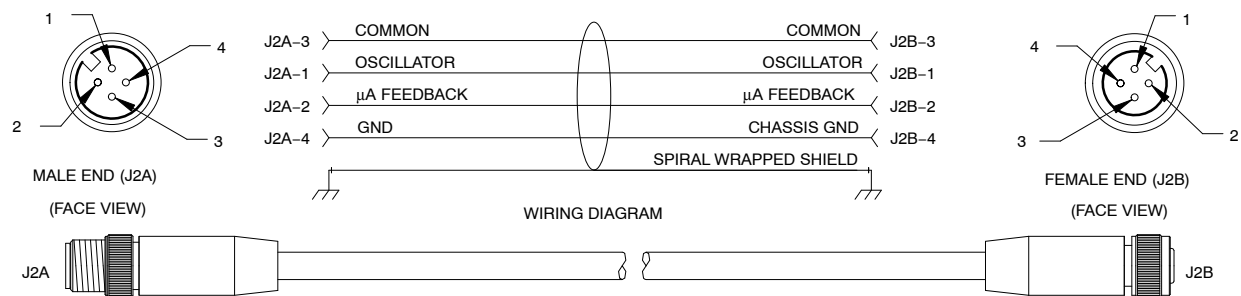


Figure 14 Gun Extension Cable

Gun Cable

This cable is available in 8, 12, and 16-meter (26, 39, 52 ft) lengths. It is used for both bar-mount and tube-mount guns.

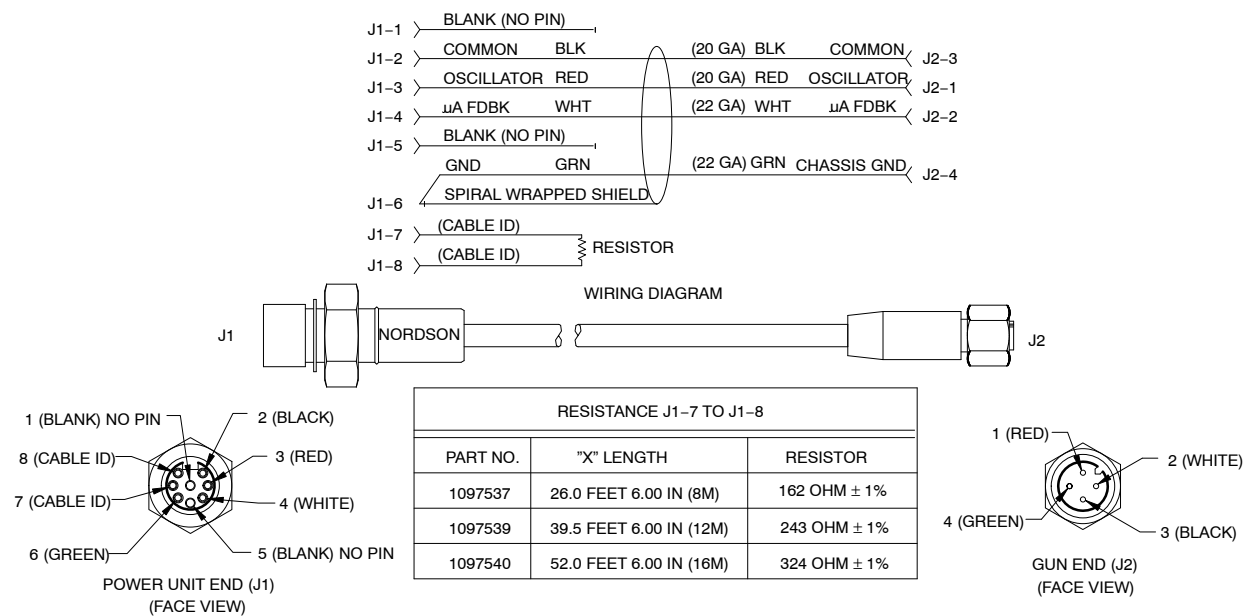


Figure 15 Gun Cable

Repair



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

Powder Wear Parts Replacement

Use this procedure to replace the powder wear parts on both the tube-mount and bar-mount guns. Replace worn or damaged parts as required.

1. See Figure 16. Unscrew the retainer nut (27) and pull the hose connector (26) off the powder tube.
2. Unscrew the nozzle nut (1) and remove the nozzle (2) and electrode assembly (3). Inspect the nozzle and electrode assembly and replace worn or damaged parts.
3. Push on the rear end of the powder tube (5) and pull it out of the front of the gun. Inspect the seal (4) and replace it if it is damaged or deformed.
4. Install the seal on the powder tube, then install the powder tube into the spray gun body and push it through until the seal seats in the front of the body.
5. Install the electrode assembly and nozzle and secure them with the nozzle nut.
6. Install the hose connector onto the end of the powder tube and tighten the retainer nut to secure the hose connector.



Figure 16 Powder Wear Parts Replacement

- | | | |
|-----------------------|----------------|--------------------|
| 1. Nozzle nut | 4. Seal | 26. Hose connector |
| 2. Nozzle | 5. Powder tube | 27. Retainer nut |
| 3. Electrode assembly | | |

Tube-Mount Gun Repair

Tube-Mount Gun Disassembly

1. Remove the nozzle, electrode assembly, hose connector, and powder tube as described in *Powder Wear Parts Replacement* on page 25.
2. See Figure 17. Disconnect the union (25) from the clear 4-mm air tubing (18).
3. Disconnect the gun cable (not shown) from the cable receptacle (20).
4. Unscrew the clamping tube nut (24) from the clamping tube (21).
5. Remove the nut and lock washer from the cable receptacle (20). Save the nut and lock washer for reuse.
6. Pull the end cap (23) off the end of the gun.

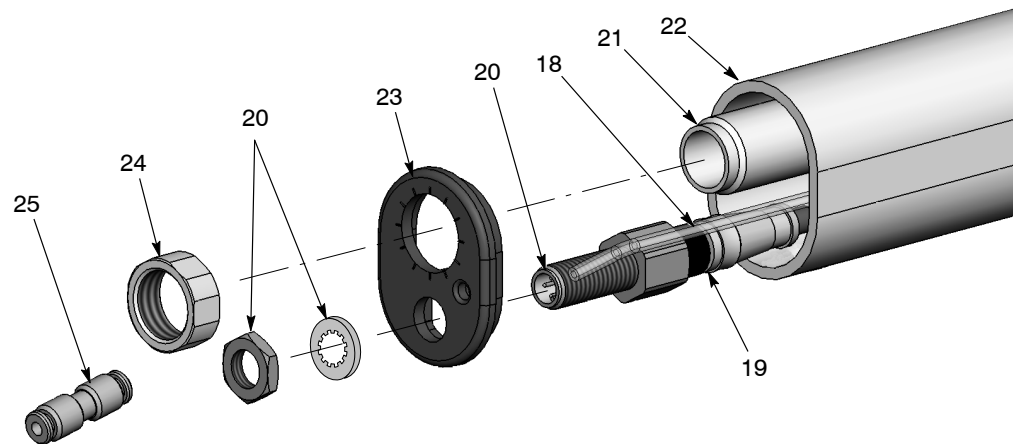


Figure 17 Tube-Mount Gun Disassembly 1 of 5

- | | | |
|-----------------------|-------------------|-----------------------|
| 18. Clear 4-mm tubing | 21. Clamping tube | 24. Clamping tube nut |
| 19. Extension cable | 22. Mounting tube | 25. Tubing union |
| 20. Cable receptacle | 23. End cap | |

NOTE: If your spray gun is equipped with an optional ion collector, you must remove it from the gun before you can remove the mounting tube.

7. See Figure 18. Pull the mounting tube (22) off the rear body assembly (14) and over the clamping tube (21).
8. Unscrew the clamping tube from the rear body assembly.
9. Disconnect the extension cable (19) from the receptacle harness (15).
10. Disconnect the clear 4-mm air tubing (18) from the barbed fitting (13).
11. If you are replacing the extension cable, remove the cable receptacle (20). If not, you can leave them connected.

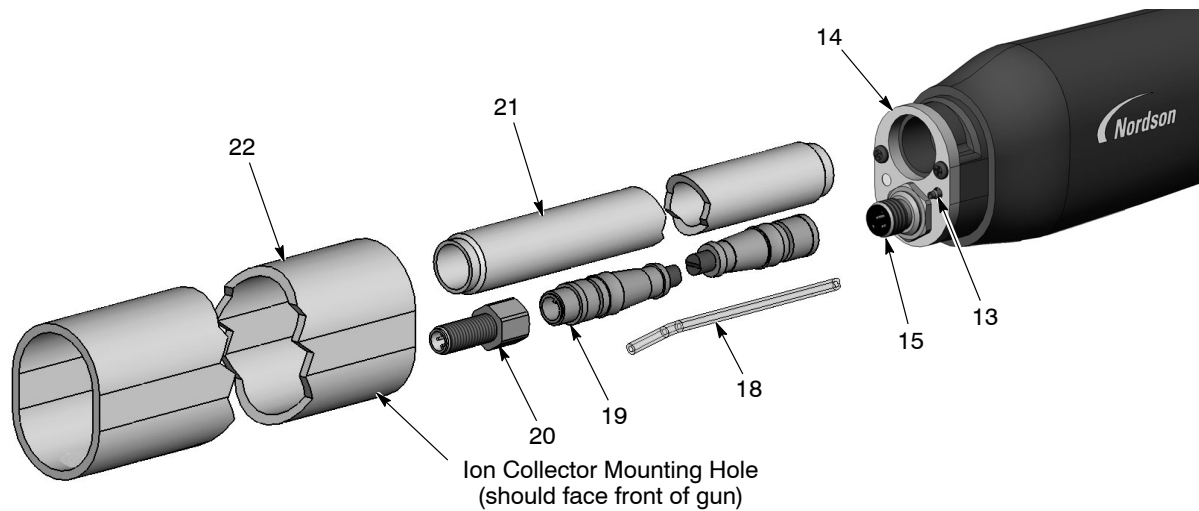


Figure 18 Tube-Mount Gun Disassembly 2 of 5

- | | | |
|------------------------|-----------------------|-------------------|
| 13. Barbed fitting | 18. Clear 4-mm tubing | 21. Clamping tube |
| 14. Rear gun body | 19. Extension cable | 22. Mounting tube |
| 15. Receptacle harness | 20. Cable receptacle | |

12. See Figure 19. Remove the two socket-head screws (17) and lock washers (17A) from the rear gun body (14).
13. Carefully pull the rear gun body far enough off the bulkhead (8) to disconnect the power supply harness (11) from the receptacle harness (15), and the filter assembly tubing (6A) from the barbed fitting inside the rear body.

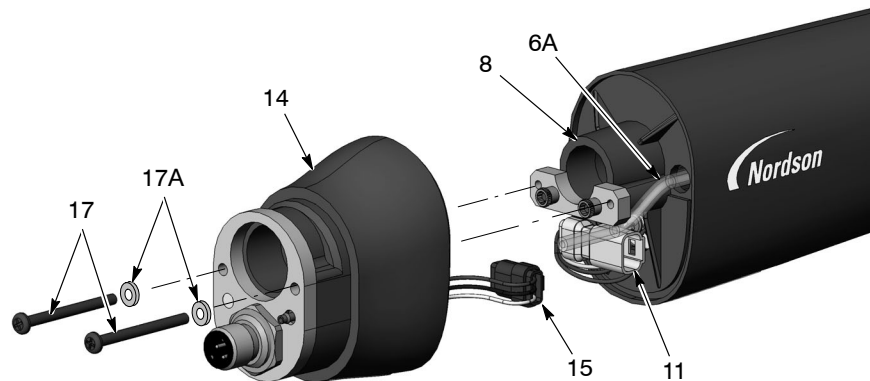


Figure 19 Tube-Mount Gun Disassembly 3 of 5

- | | | |
|----------------------------|--------------------------|------------------------|
| 6A. Filter assembly tubing | 11. Power supply harness | 15. Receptacle harness |
| 8. Bulkhead | 14. Rear gun body | 17. Socket-head screws |
| | | 17A. Lock washers |

14. See Figure 20. With a $\frac{1}{8}$ -in. hex key, remove the two Allen nuts (10) and screw plate (9) from the bulkhead (8). Then remove the bulkhead from the gun body (6), feeding the power supply harness through the bulkhead.

Tube-Mount Gun Disassembly (contd)

15. Slide the power supply (11) out of the gun body.
16. The clear 4-mm air tubing (6A) in the gun body is part of the air filter assembly that provides the electrode air-wash. To replace the air filter assembly, pull it out of the front of the gun body.
17. The gasket (7) is attached to the bulkhead with a pressure-sensitive adhesive. If the gasket is damaged, replace it with a new one.

* Install with Loctite 222

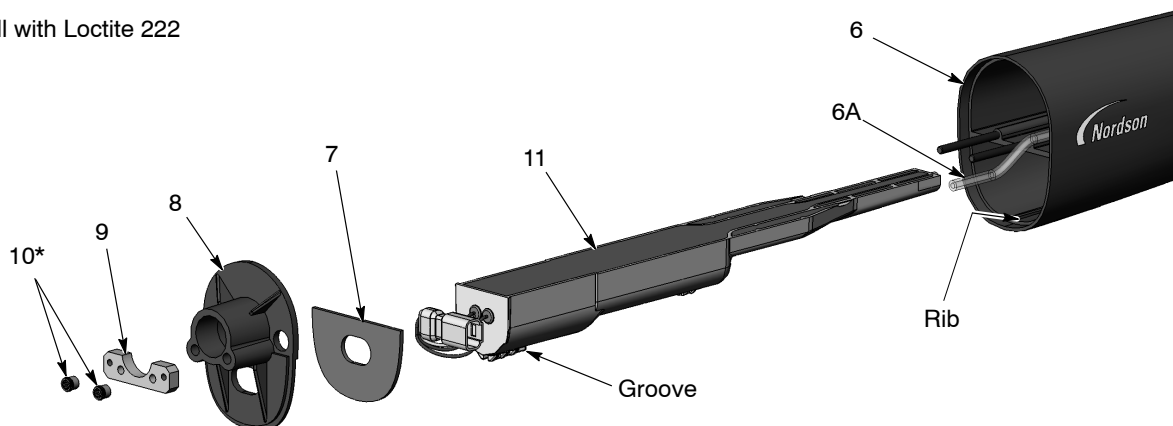


Figure 20 Tube-Mount Gun Disassembly 4 of 5

- | | | |
|----------------------------|----------------|------------------|
| 6. Gun body | 8. Bulkhead | 10. Allen nuts |
| 6A. Filter assembly tubing | 9. Screw plate | 11. Power supply |
| 7. Gasket | | |

18. See Figure 21. To disassemble the rear body assembly, remove the screw (12) and barbed fitting (13) from inside the rear gun body (14). A 3-mm hex key and 1/4-in. deep-well socket are required.

19. Remove the nut (15A) from the receptacle, pull the grounding plate (16) off the rear gun body, and feed the receptacle harness through the body.

NOTE: When reassembling, secure the ring-tongue ground terminal to the rear gun body with the screw (12) and lock washer (12A) and torque the screw to 2.5 N•m (22 inch-lbs).

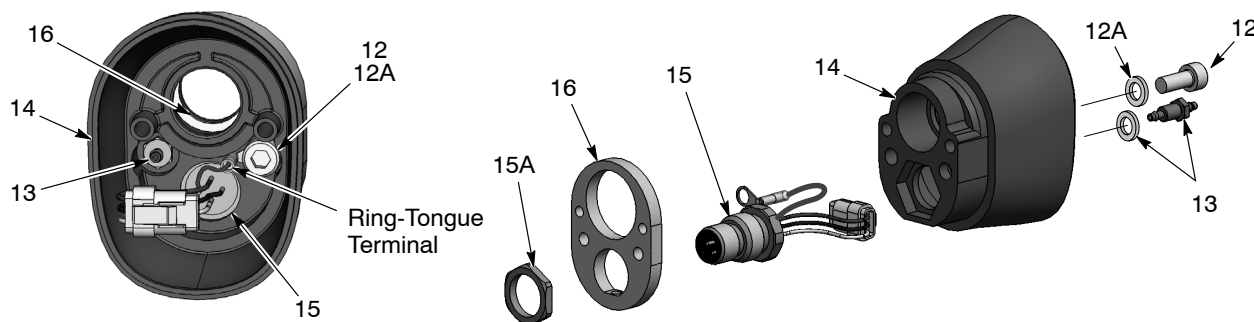


Figure 21 Tube-Mount Gun Disassembly 5 of 5

- | | | |
|-----------------------------------|------------------------|---------------------|
| 12. Screw | 14. Rear gun body | 15A. Receptacle nut |
| 12A. Lockwasher | 15. Receptacle harness | 16. Grounding plate |
| 13. Barbed fitting and lockwasher | | |

Tube-Mount Gun Assembly

NOTE: If you have a kit that combines the power supply and body assembly, skip step 1 and go to step 2.

1. See Figure 20. Install the power supply (11) into the gun body (6), making sure the gun body rib fits into the groove on the power supply. Seat the power supply firmly into the gun body.
2. Feed the power supply harness through the bulkhead (8), then install the bulkhead and screw plate (9) over the gun body studs. Apply Loctite 222 thread-locking adhesive to the Allen nuts (10) and thread them onto the studs. Torque the nuts to 0.45 N•m (64 inch-ounces) with a 1/8-in. hex key.
3. See Figure 19. Connect the receptacle harness (15) to the power supply harness (11). Tuck the harness connectors (11, 15) into the rear body assembly in the positions shown.
4. Connect the filter assembly tubing (6A) to the barbed fitting on the inside of the rear body. Feed any extra clear air tubing into the gun body, then install the rear body onto the bulkhead with the screws (17) and lock washers (17A).
5. See Figure 18. Screw the clamping tube (21) into the rear body (14).
6. Connect the extension cable (19) to the receptacle harness in the rear body assembly.
7. Connect the clear 4-mm tubing (18) to the barbed fitting on the rear body assembly.
8. Orient the mounting tube (22) with the ion collector hole facing towards the front of the gun.

NOTE: If the ion collector was previously installed towards the far rear of the assembly, position the mounting hole towards the front of the gun. Proper orientation must be implemented to allow access to the grounding plate.

9. See Figure 17. Connect the extension cable (19) to the receptacle (20) in the end cap (23).
10. Feed the ends of the extension cable and tubing into the end of the mounting tube, then slide the mounting tube over the clamping tube and rear body assembly.
11. Install the end cap on the mounting tube, feeding the clamping tube (21) and clear 4-mm tubing (18) through the end cap.
12. Secure the cable receptacle (20) to the end cap with the lock washer and nut.
13. Thread the clamping tube nut (24) onto the clamping tube and tighten securely.
14. Install the union (25) on the clear 4-mm tubing.
15. Install the powder tube, electrode assembly, nozzle, nozzle nut, and hose connector as described in *Powder Wear Parts Replacement* on page 25.

Bar-Mount Gun Repair

Bar-Mount Gun Disassembly

1. Remove the nozzle, electrode assembly, hose connector, and powder tube as described in *Powder Wear Parts Replacement* on page 25.
2. Remove the two socket-head screws (17) and lock washers (17A) from the rear body assembly (14).
3. Carefully pull the rear body assembly far enough off the bulkhead (8) to disconnect the power supply harness (11) from the receptacle harness (15); and the filter assembly tubing (10) from the barbed fitting inside the rear body assembly.

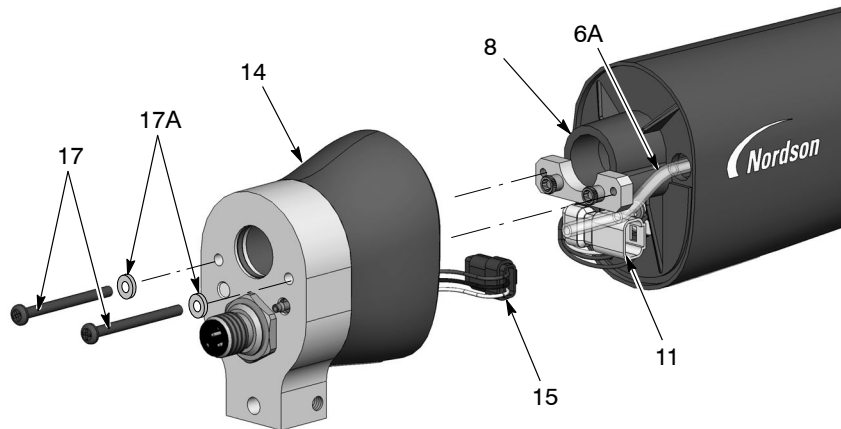


Figure 22 Bar-Mount Gun Disassembly 1 of 3

- | | | |
|----------------------------|--------------------------|------------------------|
| 6A. Filter assembly tubing | 11. Power supply harness | 15. Receptacle harness |
| 8. Bulkhead | 14. Rear body assembly | 17. Socket-head screws |
| | | 17A. Lock washers |

4. See Figure 23. With a $\frac{1}{8}$ -in. hex key, remove the two Allen nuts (10) and screw plate (9) from the bulkhead (8). Then remove the bulkhead from the gun body (6), feeding the power supply harness through the bulkhead.
5. Slide the power supply (11) out of the gun body.
6. The tubing (6A) in the gun body is part of the air filter assembly that provides the electrode air-wash. To replace the air filter assembly, pull it out of the front of the gun body.
7. The gasket (7) is attached to the bulkhead with pressure sensitive adhesive. If the gasket is damaged, replace it with a new one.

* Install with Loctite 222

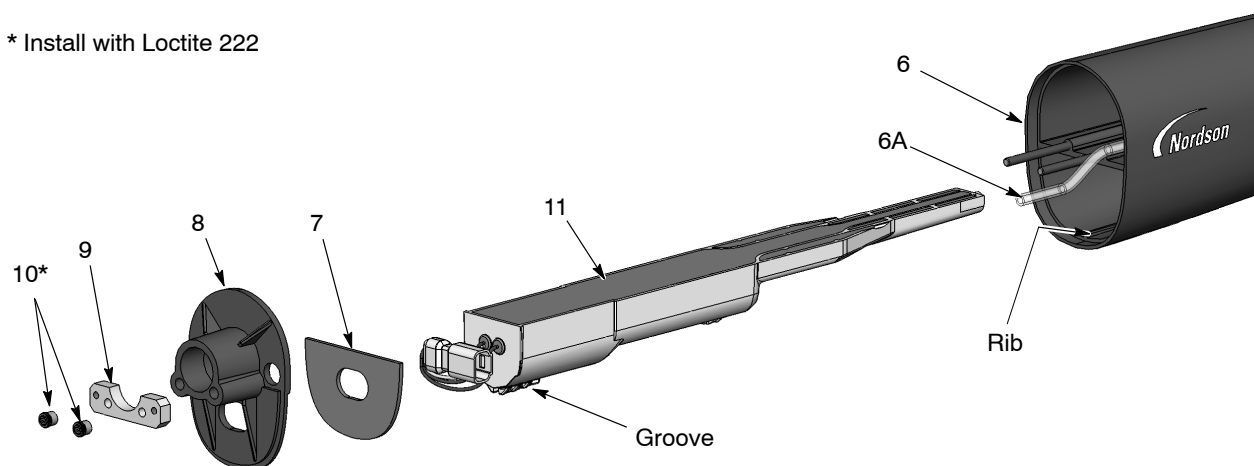


Figure 23 Bar-Mount Gun Disassembly 2 of 3

- | | | |
|----------------------------|----------------|-------------------|
| 6. Clear 4-mm tubing | 8. Bulkhead | 10. Allen nuts |
| 6A. Filter assembly tubing | 9. Screw plate | 11. Powder supply |
| 7. Gasket | | |

8. See Figure 24. To disassemble in the rear body assembly, remove the screw (12), lock washer (12A), and barbed fitting and lock washer (13) from inside the rear body (14). A 3-mm hex key and 1/4-in. deep-well socket are required.

9. Remove the nut (15A) from the receptacle (15), pull the adapter off the rear gun body, and feed the receptacle harness through the body.

10. Inspect the quad ring (18) in the adapter (16) and replace it if damaged.

NOTE: When reassembling, secure the ring-tongue ground terminal to the rear gun body with the screw (12) and torque it to 2.5 N•m (22 inch-lbs).

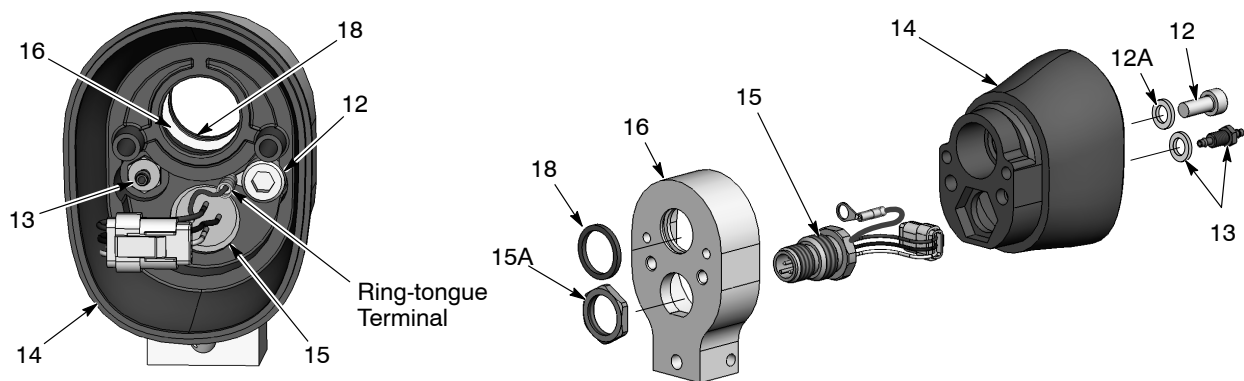


Figure 24 Bar-Mount Gun Disassembly 3 of 3

- | | | |
|-----------------------------------|----------------------------|-----------------------|
| 12. Screw | 14. Rear body | 16. Bar mount adapter |
| 12A. Lockwasher | 15. Receptacle and harness | 18. Quad ring |
| 13. Barbed fitting and lockwasher | 15A. Receptacle nut | |

Bar-Mount Gun Assembly

NOTE: If you have a kit that combines the power supply and body assembly, skip step 1 and go to step 2.

1. See Figure 23. Install the power supply (11) into the gun body (6), making sure the gun body rib fits into the groove on the power supply. Seat the power supply firmly into the gun body.
2. Feed the power supply harness through the bulkhead, then install the bulkhead (8) and screw plate (9) over the gun body studs. Apply Loctite 222 to the Allen nuts (10), then install the nuts on the studs and torque them to 0.45 N•m (64 inch-ounces) with a 1/8-in. hex key.
3. See Figure 22. Connect the receptacle harness (15) to the power supply harness (11). Tuck the harness connectors (11, 15) into the rear body assembly in the positions shown.
4. Connect the clear filter tubing (6A) to the barbed fitting on the inside of the rear body assembly (14). Feed any extra clear air tubing into the gun body, then install the rear body assembly onto the bulkhead with the screws (17) and lock washers (17A).
5. Install the powder tube, electrode assembly, nozzle, nozzle nut, and hose connector as described in *Powder Wear Parts Replacement* on page 25.

Parts

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

Tube-Mount Gun Parts

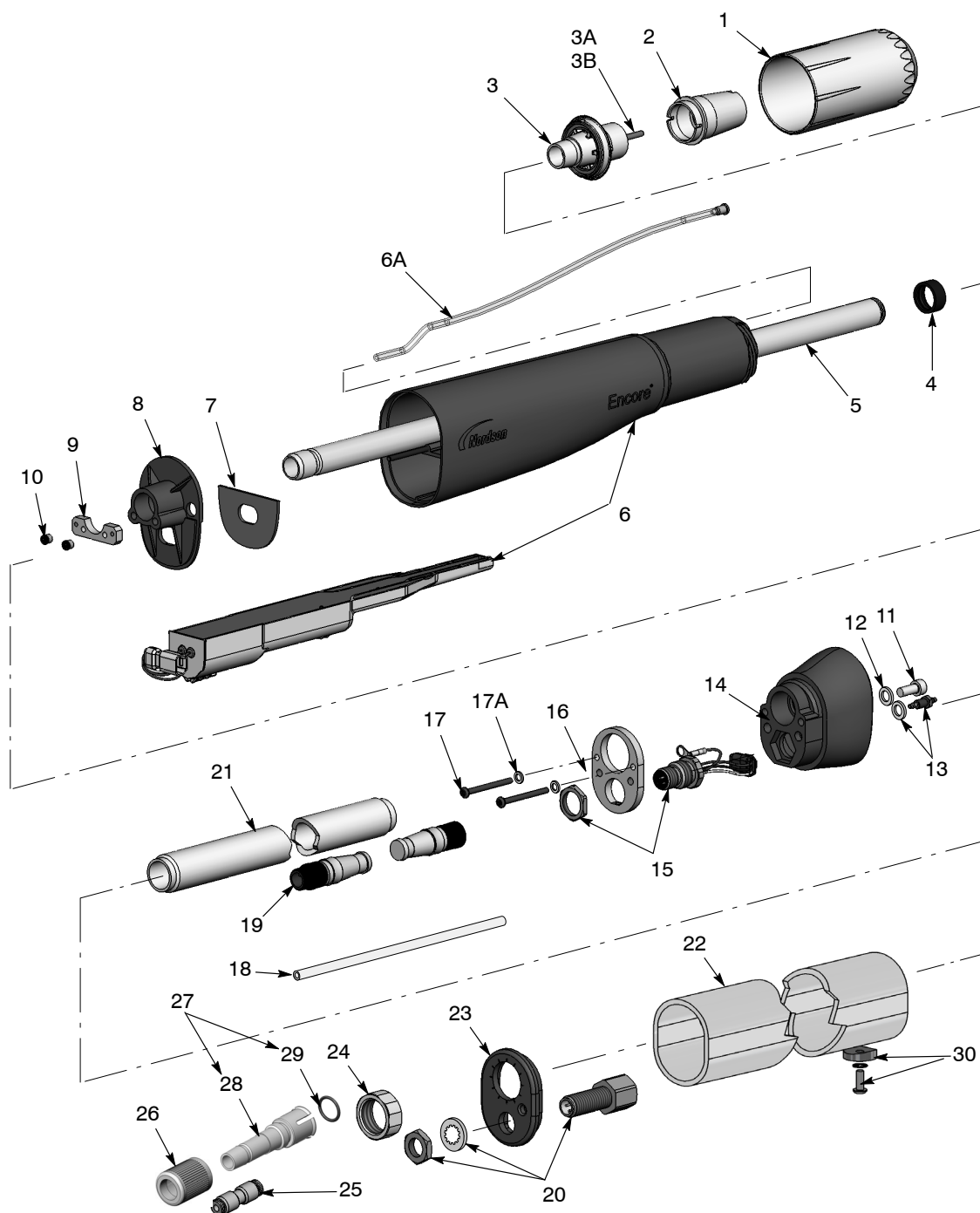


Figure 25 Tube-Mount Gun Parts

Standard 5-Foot Tube-Mount Gun Parts List

See Figure 25.

Item	Part	Description	Quantity	Note
–	1613693	GUN, auto, tube-mount, Encore, 5 ft, two-gun pack	1	E
–	1613694	GUN, auto, tube-mount, Encore, 5 ft, one-gun pack	1	E
–	1614273	GUN, auto, tube-mount, Encore, 5 ft PVC, two-gun pack	1	E
–	1614274	GUN, auto, tube-mount, Encore, 5 ft PVC, one-gun pack	1	E
1	1081638	• NUT, nozzle, handgun, Encore	1	
2	1081658	• NOZZLE, flat spray, 4 mm, Encore	1	A
3	1604824	• ELECTRODE ASSEMBLY, Encore, flat spray	1	D
3A	1106078	• • ELECTRODE, spring contact, packaged	1	
3B	1605863	• • HOLDER, electrode, M3, flat spray, Encore	1	D
4	1097527	• SEAL, tube, powder	1	
5	1602673	• TUBE, powder, tube mount, auto, Encore, 5 ft	1	E
6	1608279	• KIT, negative power supply/auto body, Encore	1	F
6A	1088558	• • FILTER ASSEMBLY, handgun	1	
7	1088502	• GASKET, multiplier cover, handgun, Encore	1	
8	1097520	• BULKHEAD, body, front, auto, Encore	1	
9	1101381	• PLATE, screw	1	
10	1097522	• NUT, Allen, 4-40, stainless steel	2	
11	815666	• SCREW, socket, M5 x 0.8 x 12, zinc	1	
12	983127	• WASHER, lock, internal, M5, zinc	1	
13	1081616	• FITTING, bulkhead, barbed, dual, 10–32 x 4 mm tubing	1	
14	1097518	• BODY, gun, rear, auto, Encore	1	
15	1097514	• RECEPTACLE, gun harness	1	
16	1097513	• PLATE, grounding	1	
17	1605696	• SCREW, socket head, M3 x 35 mm	2	
17A	983520	• WASHER, lock, internal, M3, steel, zinc	2	
18	900617	• TUBING, polyurethane, 4 mm OD, clear (6 ft)	AR	B
19	1103426	• CABLE, extension, auto, Encore, 1196 mm	1	
20	1097533	• RECEPTACLE, M12, male/female, 4P	1	
21	1602674	• TUBE, clamp	1	
22	1099828	• TUBE, mount, auto, Encore, 5 ft	1	E
22	1602611	• TUBE, mount, auto, Encore, 5 ft, PVC	1	E
23	1097534	• CAP, end, tube mount	1	
24	1097535	• NUT, clamp, tube mount	1	
25	1003964	• UNION, straight, 4 mm tube	1	
26	1604821	• RETAINER, connector, hose, univ, auto, Encore	1	
27	1604831	• CONNECTOR ASSY, hose, univ, auto, Encore	1	C
28	-----	• • CONNECTOR, hose, univ, auto, Encore	1	
29	940156	• • O-RING, silicone, 0.563 x 0.688 x 0.063	1	
30	1609314	• PLUG, tube mount, kit, auto, Encore	1	

Continued...

Item	Part	Description	Quantity	Note
NS	247006	• CLAMP, hose, 0.637–0.795 OD	1	
NS	939247	• CLAMP, hose, Snap-it	1	
NS	1081656	• NOZZLE, flat spray, 2.5 mm, Encore	1	A
<p>NOTE A: Refer to the <i>Options</i> section for a complete list of available flat spray nozzles, conical nozzles and deflectors.</p> <p>B: Bulk item, order in increments of one foot.</p> <p>C: For use with 11 mm and 1/2 in hose.</p> <p>D: For flat spray nozzle use only. Refer to the <i>Options</i> section for assemblies/parts for use with conical nozzles and deflectors.</p> <p>E: The type of material used for the tube mount determines the type of spray gun.</p> <p>F: <u>Application Specific</u>: Order part number 1609053 if a positive power supply is needed. The positive power supply is sold separately from the gun body.</p> <p>AR: As Required</p> <p>NS: Not Shown</p>				

Bar-Mount Gun Parts

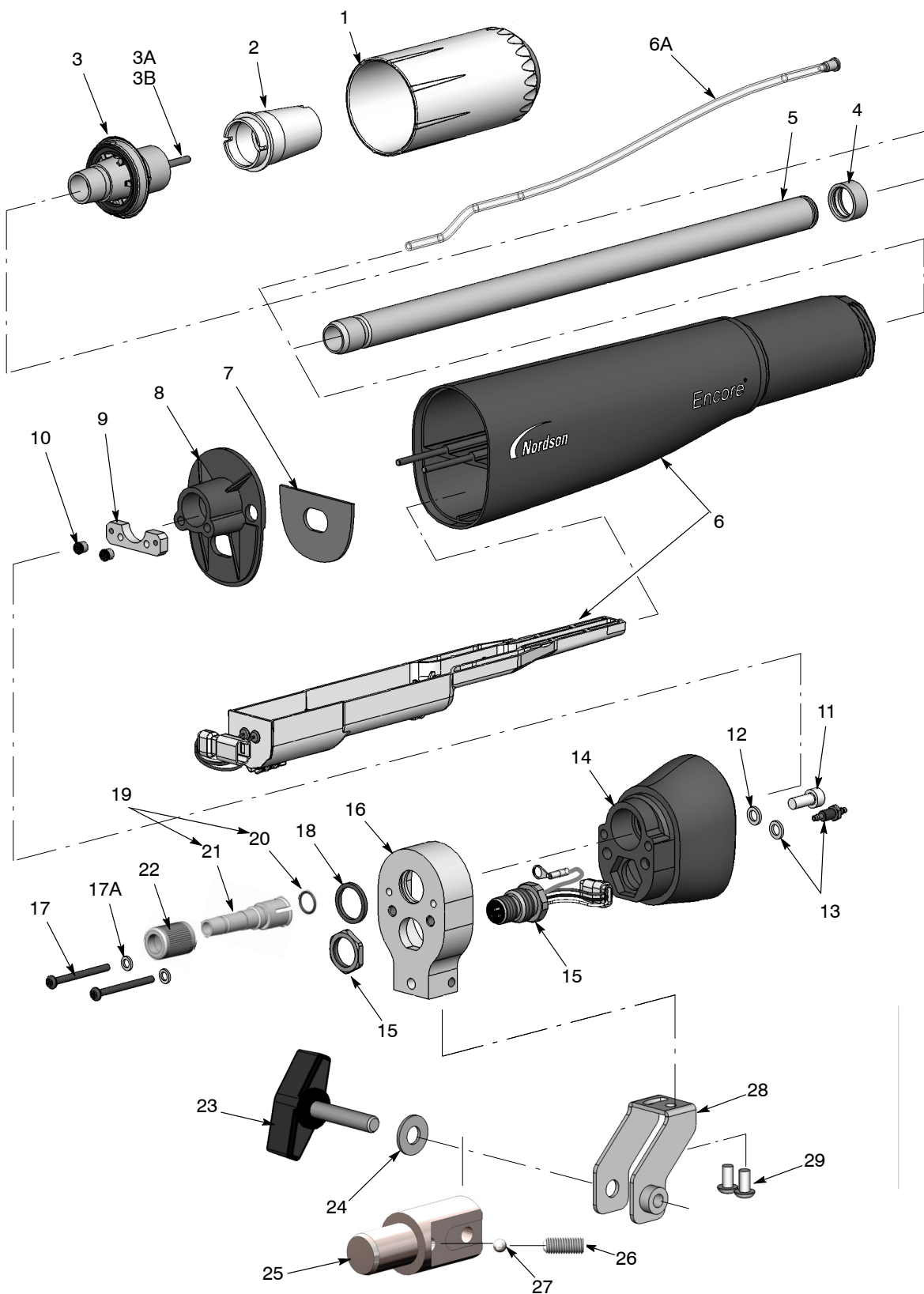


Figure 26 Bar-Mount Gun Parts

Bar-Mount Gun Parts List

See Figure 26.

NOTE: Cables for the bar-mount gun are optional. Refer to *Options, Cables*, on page 39 for available cables.

Item	Part	Description	Quantity	Note
–	1097489	GUN, auto, bar mount, Encore	1	
1	1081638	• NUT, nozzle, handgun, Encore	1	
2	1081658	• NOZZLE, flat spray, 4 mm, Encore	1	A
3	1604824	• ELECTRODE ASSEMBLY, Encore, flat spray	1	C
3A	1106078	• • ELECTRODE, spring contact	1	
3B	1605863	• • HOLDER, electrode, M3, flat spray, Encore	1	C
4	1097527	• SEAL, tube, powder	1	
5	1097524	• TUBE, powder, bar mount, auto, Encore	1	
6	1608279	• KIT, neg power supply/auto body, Encore	1	D
6A	1088558	• • FILTER ASSEMBLY, handgun	1	
7	1088502	• GASKET, multiplier cover, handgun, Encore	1	
8	1097520	• BULKHEAD, body, front, auto, Encore	1	
9	1101381	• PLATE, screw	1	
10	1097522	• NUT, Allen, 4-40, stainless steel	2	
11	815666	• SCREW, socket, M5 x 0.8 x 12, zinc	1	
12	983127	• WASHER, lock, internal, M5, zinc	1	
13	1081616	• FITTING, bulkhead, barbed, dual, 10–32 x 4 mm tubing	1	
14	1097518	• BODY, gun, rear, auto, Encore	1	
15	1097514	• RECEPTACLE, gun harness	1	
16	1097512	• ADAPTER, mount, bar	1	
17	1605696	• SCREW, socket head, M3 x 35 mm	1	
17A	983520	• WASHER, lock, internal, M3, steel, zinc	2	
18	1097511	• QUAD RING, Viton, 0.614 in. ID x 0.070 in.	1	
19	1604831	• CONNECTOR ASSY, hose, univ, auto, Encore	1	B
20	940156	• • O-RING, silicone, 0.563 x 0.688 x 0.063	1	
21	-----	• • CONNECTOR, hose, univ, auto, Encore	1	
22	1604821	• RETAINER, connector, hose, univ, auto, Encore	1	
23	1102293	• KNOB, T-handle	1	
24	1102294	• WASHER, flat, 0.34 x 0.74 x 0.06 in., nylon	1	
25	1097546	• ADAPTER, tube, mount, bar	1	
26	345385	• SCREW, set, flat, M8 x 20, black	1	
27	1097545	• BALL, chrome steel, 6.5 mm diameter, 25, C63	1	
28	1097542	• BRACKET, mount, bar	1	
29	982503	• SCREW, button, socket, M5 x 10	2	
NS	247006	• CLAMP, hose, 0.637–0.795 OD	1	
NS	939247	• CLAMP, hose, Snap-it	1	
NS	1081656	• NOZZLE, flat spray, 2.5 mm, Encore	1	A

Continued...

Item	Part	Description	Quantity	Note
<p>NOTE A: Refer to the <i>Options</i> section for a complete list of available flat spray nozzles, conical nozzles and deflectors.</p> <p>B: For use with 11 mm and 1/2 in hose.</p> <p>C: For flat spray nozzle use only. Refer to the <i>Options</i> section for assemblies and parts for use with conical nozzles and deflectors.</p> <p>D: <u>Application Specific</u>: Order part number 1609053 if a positive power supply is needed. The positive power supply is sold separately from the gun body.</p> <p>NS: Not Shown</p>				

Options

Six-Foot Tube Mount Gun

See Figure 25 for the parts illustration, and the standard 5-ft tube mount gun parts list for all other parts.

Item	Part	Description	Quantity	Note
–	1097500	GUN, auto, tube mount, Encore, 6 ft	1	
5	1602675	• TUBE, powder, tube mount, auto, Encore, 6 ft	1	
19	1097536	• CABLE, extension, auto, Encore, 1496 mm	1	
21	1602676	• TUBE, clamp, 6 ft	1	
22	1097532	• TUBE, mount, auto, Encore, 6 ft	1	

Hose Hanger

See Figure 27. The hose hanger assembles to the tube mount gun to support the powder hose, air tubing, and gun cable.

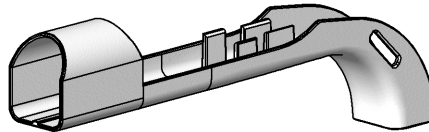


Figure 27 Optional Hose Hanger

Part	Description	Note
1612462	HANGER, hose, automatic gun	

Cables

These cables connect the spray gun to the gun controller (Encore iControl integrated control unit).

Part	Description	Note
1097537	CABLE, auto, Encore, 8 meter (26.25 ft)	
1097539	CABLE, auto, Encore, 12 meter (39.4 ft)	
1097540	CABLE, auto, Encore, 16 meter (52.5 ft)	
1601344	CABLE, extension, Encore, 4 m (13.1 ft)	

Flat Spray Nozzles

See Figure 28. The 2.5 and 4-mm flat spray nozzles are shipped with the spray gun. Flat spray nozzles are capable of 90° incremental adjustments.

All other flat spray nozzles are optional.

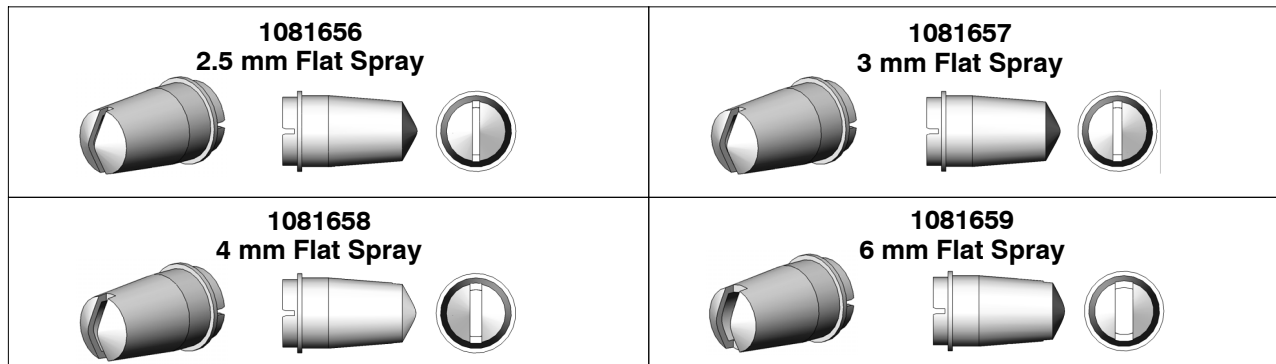


Figure 28 Flat Spray Nozzles

Cross-Cut Nozzles

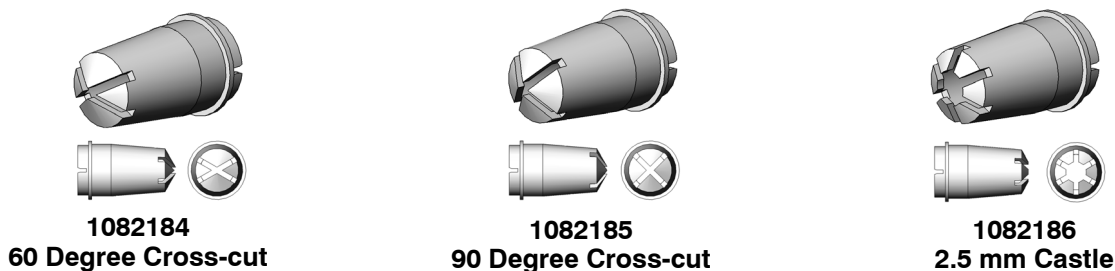


Figure 29 Cross-Cut Nozzles

45-Degree Corner-Spray Nozzle

See Figure 30.

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

Part	Description	Note
1102872	NOZZLE, corner spray, Encore	

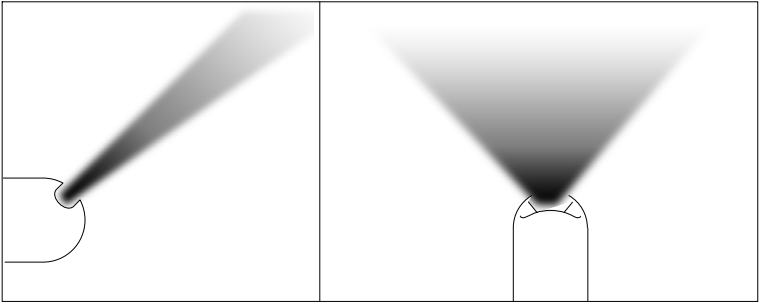
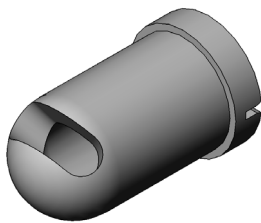


Figure 30 45-Degree Corner Spray Nozzle

45-Degree In-Line Flat-Spray Nozzle

See Figure 31.

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

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

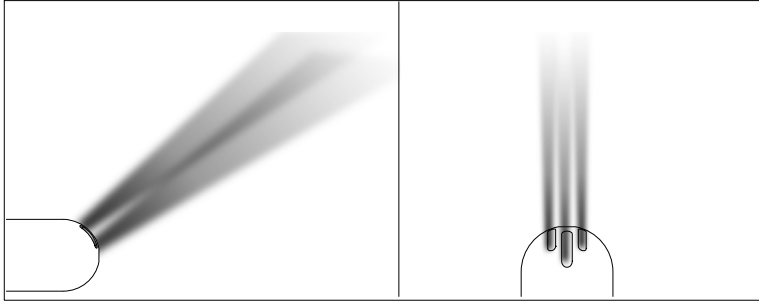
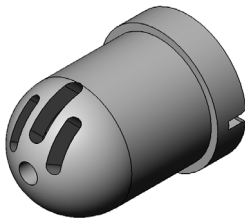


Figure 31 45-Degree Flat Spray Nozzle

Conical Nozzle, Deflectors and Electrode Assembly Parts

See Figures 32 and 33. The conical nozzle and deflectors must be used with the conical electrode holder. These parts are optional and must be ordered separately.

Conical Nozzle and Deflectors

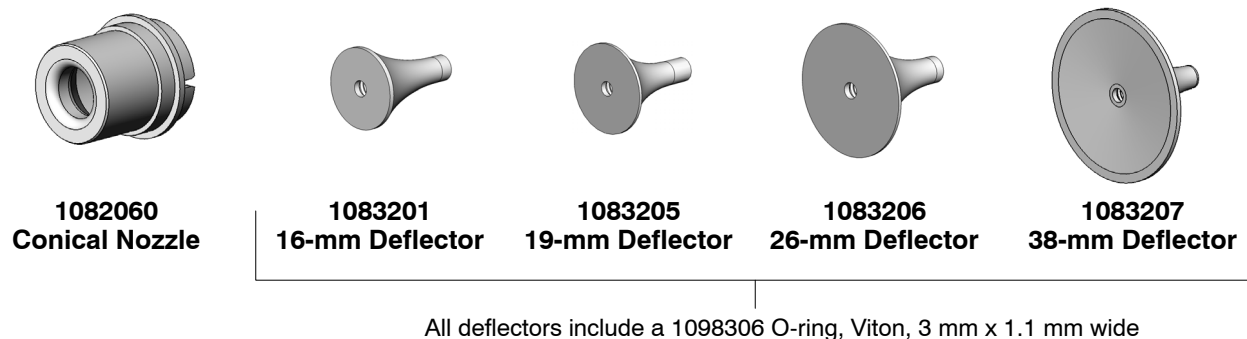


Figure 32 Conical Nozzle and Deflectors

Conical Nozzle Kit

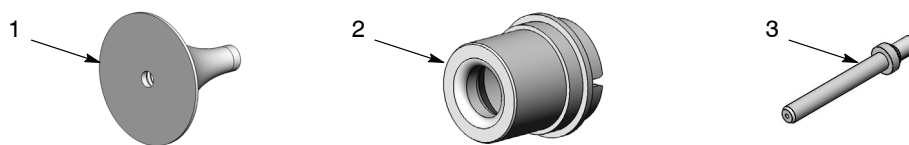


Figure 33 Conical Nozzle Kit

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

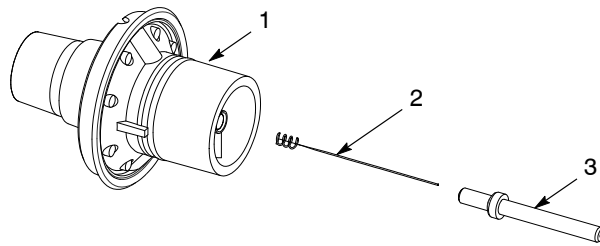
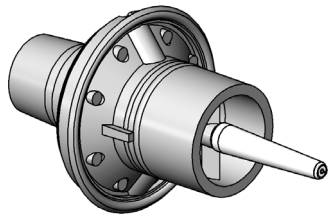


Figure 34 Conical Electrode Assembly

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	

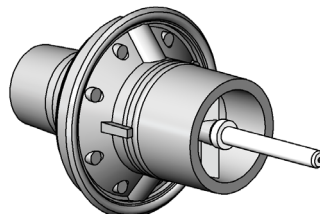
XD Electrode Support

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 35 Conical Spray and Flat Spray Electrode Supports

Encore Angled Spray Extensions

See Figure 36. Encore angled spray extensions are available in 45, 60, and 90 degree versions. They are designed to be used on Encore automatic powder spray guns, allowing powder to be sprayed at varying angles to the gun mounting orientation.

All angled spray extensions are optional. See instruction sheet P/N 1605615 for parts, service kits, and more information.

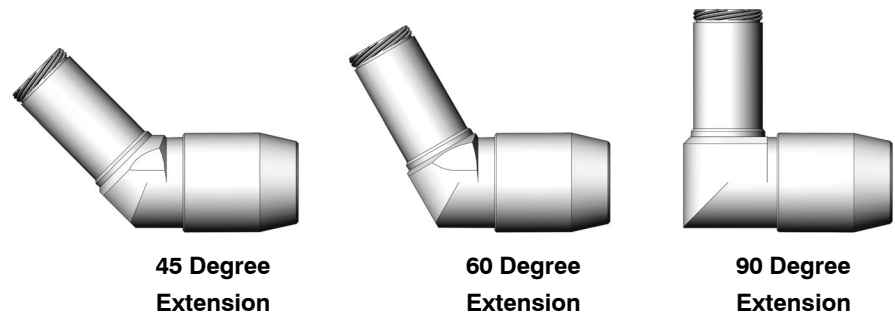


Figure 36 Angled Spray Extensions

Item	Part	Description	Note
—	1605703	EXTENSION, spray, 45 degree, Encore	
—	1605614	EXTENSION, spray, 60 degree, Encore	
—	1604084	EXTENSION, spray, 90 degree, Encore	

Tube-Mount Gun Mounting Assemblies

All mounting assemblies are optional.

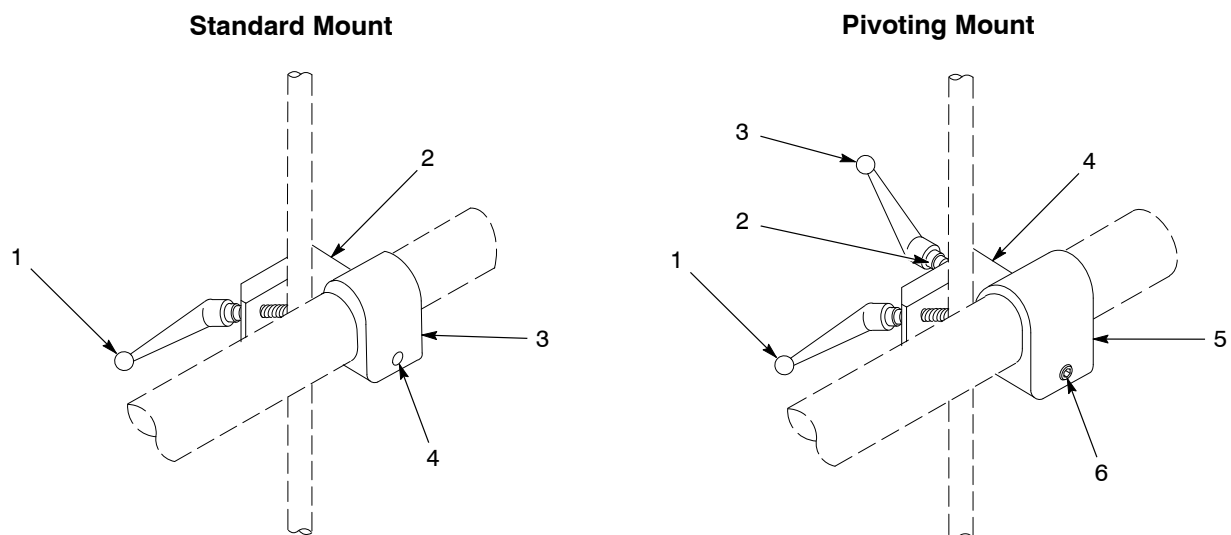


Figure 37 Gun Bar Mounts for Tube-Mount Guns

Standard Mount Assembly

Item	Part	Description	Quantity	Note
—	1010717	MOUNT, assembly, Sure Coat automatic gun	1	
1	248957	• HANDLE, adjustment, $\frac{3}{8}$ -16 x 1.77 in.	1	
2	-----	• MOUNT, clamp, automatic gun	1	
3	-----	• MOUNT, sleeve, automatic gun	1	
4	981561	• SCREW, socket, $\frac{3}{8}$ -16 x 1.00 in., zinc	3	

Pivot Mount Assembly

Item	Part	Description	Quantity	Note
—	341756	MOUNT, tube holder, assembly	1	
1	248957	• HANDLE, adjustment, $\frac{3}{8}$ -16 x 1.77 in.	1	
2	983061	• WASHER, flat, 0.406 x 0.812 x 0.065 in., zinc	1	
3	249074	• HANDLE, adjustment, $\frac{3}{8}$ -16 x 2.75 in.	1	
4	-----	• MOUNT, clamp, automatic gun	1	
5	-----	• MOUNT, sleeve, automatic gun	1	
6	981561	• SCREW, socket, $\frac{3}{8}$ -16 x 1.00 in., zinc	3	

Extrusion Mount Assembly

Use this assembly to mount a tube-mount gun to a rigid bracket mounted on a T-slot extrusion.

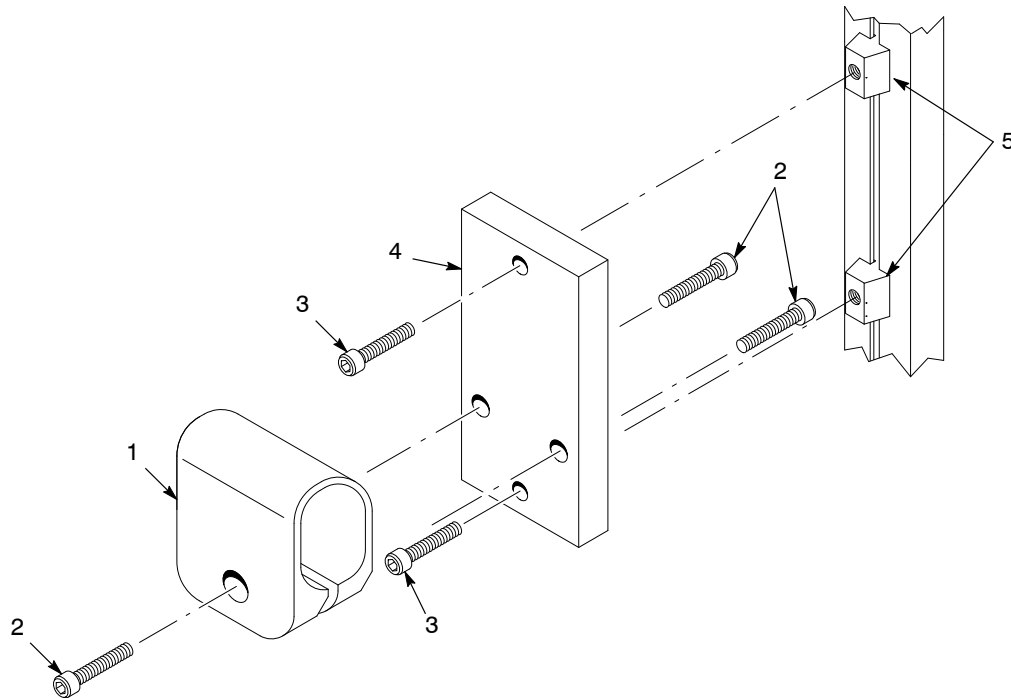


Figure 38 Extrusion Gun Mount Assembly for Tube-Mount Guns

Item	Part	Description	Quantity	Note
—	1016515	PLATE, adapter, support, gun bar assembly	1	
1	1013964	• MOUNT, sleeve, with screws, Sure Coat automatic	1	
2	981561	• • SCREW, socket, $\frac{3}{8}$ -16 x 1.00 in., zinc	3	
3	981528	• SCREW, socket, M8 x 30, zinc	2	
4	1016458	• PLATE, attachment, support, gun bar	1	
5	1016533	• NUT, T-slot, steel, M8	2	

Gun Bar for Bar-Mount Guns

The gun bar is optional. It clamps onto 1-in. diameter mounting bars.

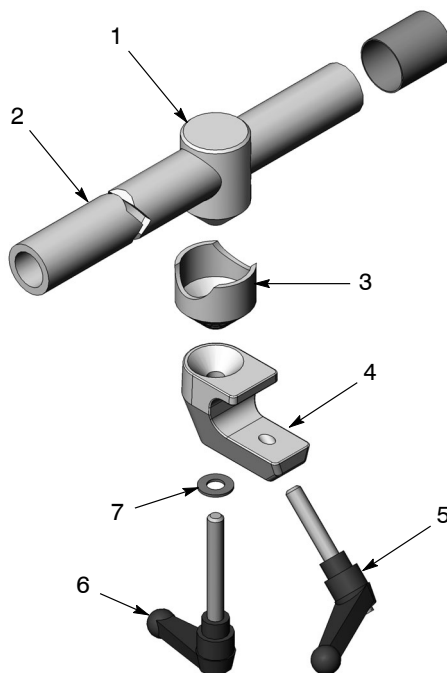


Figure 39 Gun Bar for Bar-Mount Guns

Item	Part	Description	Quantity	Note
–	341727	GUN BAR, aluminum, 1.25-in. OD x 4 ft., assembly	1	
1	327732	• BODY, locking, 1.25 in. diameter	1	
2	327704	• ROD, adjusting, aluminum, 1.25 in. OD x 4 ft	1	
3	327733	• SLEEVE, locking, 1.25 in. diameter	1	
4	248669	• BODY, adjust mounting	1	
5	248957	• HANDLE, adjust, $\frac{3}{8}$ -16 x 1.77 in.	1	
6	249074	• HANDLE, adjust, $\frac{3}{8}$ -16 x 2.75 in.	1	
7	983061	• WASHER, flat, 0.406 x 0.812 x 0.065 in., zinc	1	

Ion Collector Kit

The ion collector kit is optional. It can be used on either Encore automatic gun model.

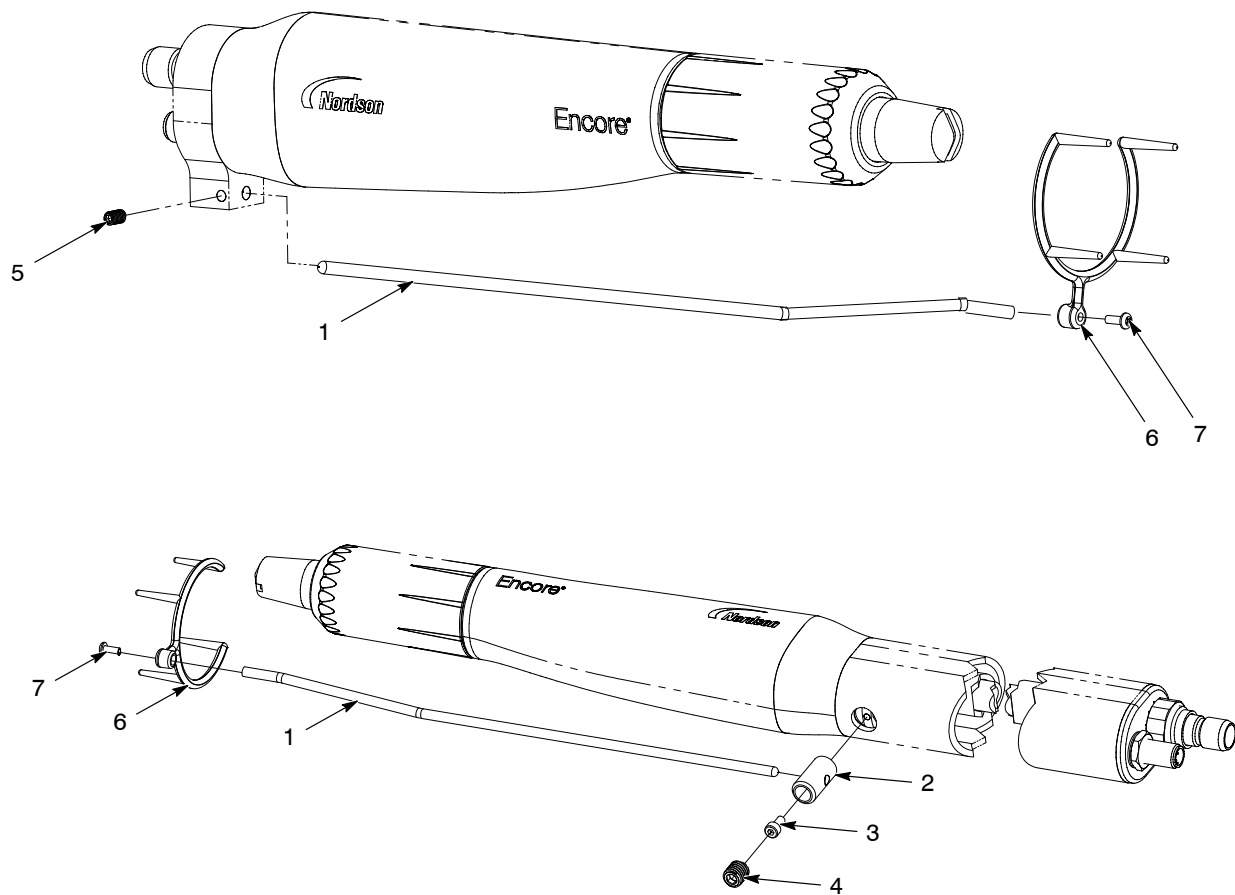


Figure 40 Ion Collector Kit

Item	Part	Description	Quantity	Note
—	1097505	KIT, collector, ion, Encore	1	
1	-----	• ROD, ion collector, offset	1	
2	1097547	• POST, collector, ion	1	
3	105800	• SCREW, socket head, M4 x 0.7 x 8 mm	1	
4	1097696	• SCREW, set, nylon tip, M10 x 10, black	1	
5	1097543	• SCREW, set, nylon tip, M5 x 8, black	1	
6	-----	• TIP, ion collector, multi-point	1	
7	982017	• SCREW, pan, rec, M3 x 8, zinc	1	

EU DECLARATION of CONFORMITY

Product: Encore Automatic Powder Spray System

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

Models: Encore Automatic Applicator and Encore iControl 2

Description: The automatic electrostatic powder spray system includes applicator, control cable and associated controllers. These controls are available in a 4 - 16 applicator control cabinets as a main console with a pc and display or an auxiliary console without the pc or display. There is an optional Pedestal unit for remote mounting of the display.

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 (2006) EN61000-6-3 (2007)

FM 7260 (1996)

EN60079-0 (2013) EN50050-2 (2013) EN61000-6-2 (2005)

EN60079-31 (2014) EN50177 (2009) EN55011 (2009)

Type of Protection:

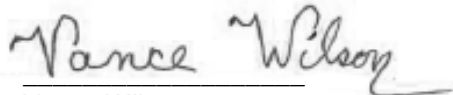
- Ambient Temperature: +15°C to +40°C
- Ex II 2 D / 2mJ = Auto Applicators
- Ex II (2) D = Main Console and Auxiliary Console Controllers
- Ex II (2) 3 D = Optional Pedestal

ATEX Product Certificates:

- FM11ATEX0056X (Applicators) (Norwood, Mass. USA)
- FM13ATEX0010X (Controllers) (Norwood, Mass. USA)

ATEX Quality System Certificate

- 1180 Baseefa (Buxton, Derbyshire, UK)



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

Date: 11 DEC 2017

Nordson Authorized Representative in the EU

Person authorized to compile the relevant technical documentation.

Contact: Operations Manager
Industrial Coating Systems
Nordson Deutschland GmbH
Heinrich-Hertz-StraBe 42-44
D-40699 Erkrath



Nordson Corporation • Westlake, Ohio

DOC14041-05

EU DECLARATION of Conformity

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 associated controls. This is available in a stationary 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)	FM 7260 (2018)
EN60079-0 (2013)	EN50050-2 (2013)	EN61000-6-2 (2005)	
EN60079-31 (2014)	EN50177 (2009 +A1:2012)	EN55011 (2009)	

Type of Protection:

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

ATEX Product Certificates:

- FM11ATEX0056X (Applicators) (Norwood, Mass. USA)
- FM11ATEX0057X (Controllers) (Norwood, Mass. USA)

ATEX Quality System Certificate

- 1180 SGS Baseefa (Buxton, Derbyshire, UK)

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



Date: 08Jan2020

Jeremy Krone
Supervisor Product Development Engineering
Industrial Coating Systems
Amherst, Ohio, USA

Person authorized to compile the relevant technical documentation.

Contact: Operations Manager
Industrial Coating Systems
Nordson Deutschland GmbH
Heinrich-Hertz-StraBe 42-44
D-40699 Erkrath



Nordson Corporation ● Westlake, Ohio

DOC14033-05

EU DECLARATION of Conformity

Product: Encore XT / HD Manual Powder Spray Systems

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:

2006/42/EC - Machinery Directive

2014/30/EU - EMC Directive

2014/34/EU - ATEX Directive

Standards Used for Compliance:

EN/ISO12100 (2010) EN60079-0 (2014) EN61000-6-3 (2007) FM 7260 (1996) EN50050-2 (2013)

EN1953 (2013) EN60079-31 (2014) EN61000-6-2 (2005) EN55011 (2009) EN60204-1 (2006)

Principles:

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

Type of Protection:

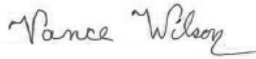
- Ambient Temperature: +15°C to +40°C
- Ex tb IIIB T60°C / Ex II 2 D / 2mJ = (Encore XT and HD Applicators)
- Ex tc IIIB T60°C / EX II (2) 3 D = (Controllers)
- Ex II 2 D / 2mJ = (Encore Auto Applicator)

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

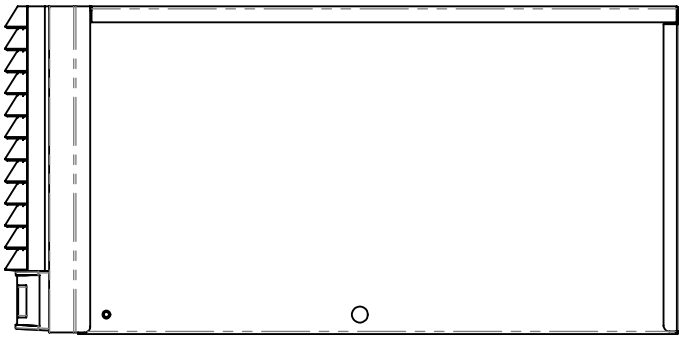
Nordson Authorized Representative in the EU

Contact: Operations Manager
Industrial Coating Systems
Nordson Deutschland GmbH
Heinrich-Hertz-Straße 42-44
D-40699 Erkrath

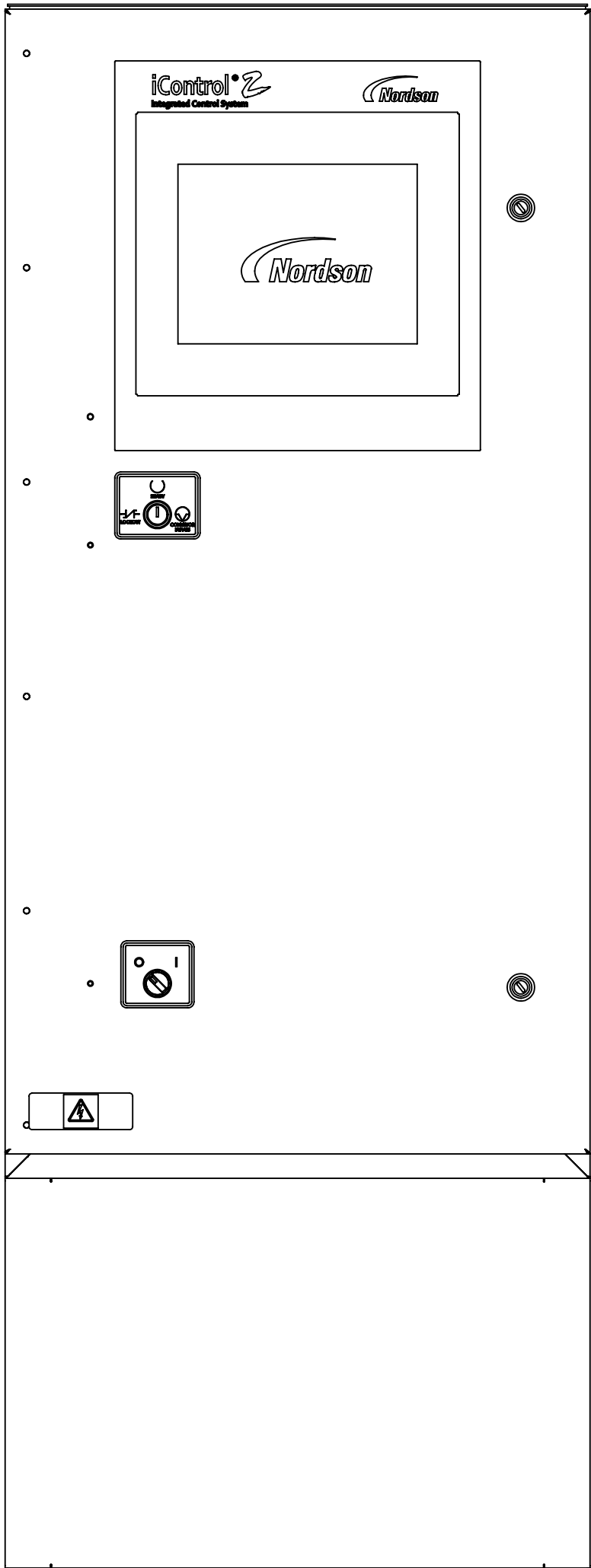


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		AND ADDED P/N 1601344 FROM TABLE.			24OCT13
	03	03)SHEET 2 ADDED	DAK	BZ	PE603484
	04	04) ADDED 1606986 TO TABLE	MB	BF	04DEC13
	05	ADDED 1609048 TO TABLE	DB	BF	14FEB15
					10JAN17

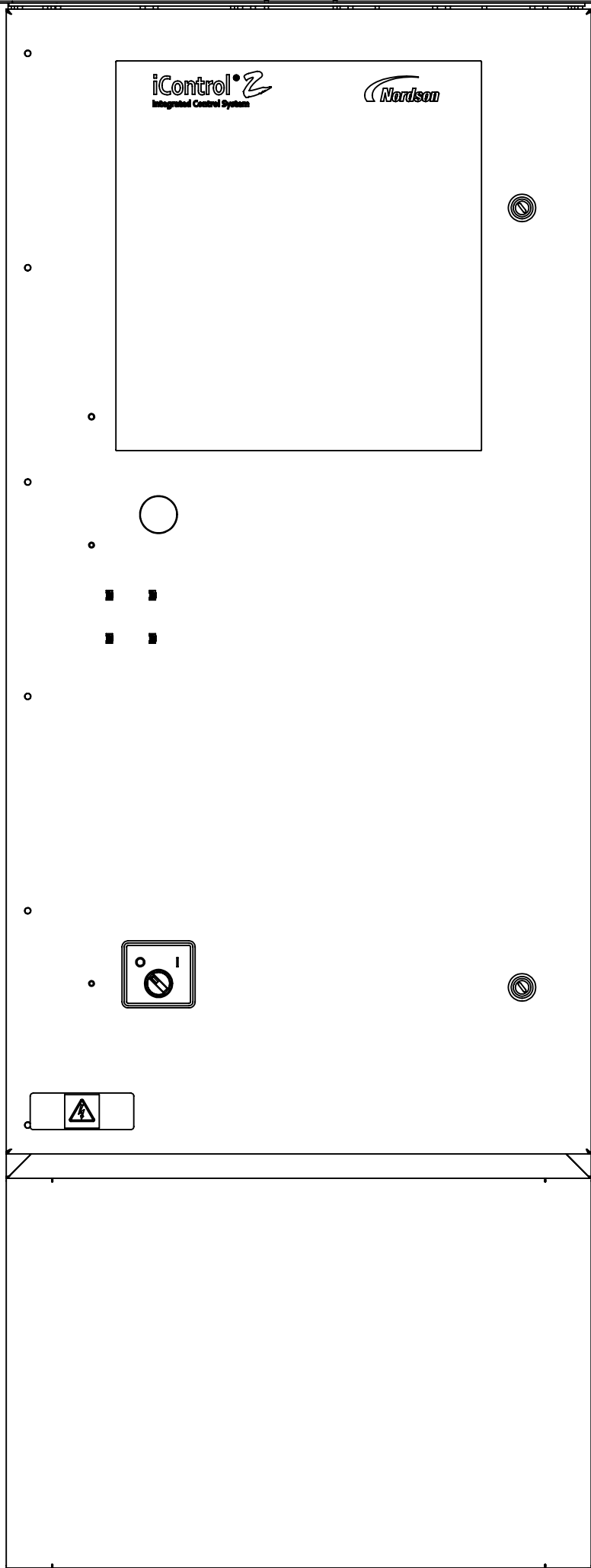
AIR CONDITIONING UNIT



MAIN CONSOLE



AUXILIARY CONSOLE



ENCORE iCONTROL 2

THE FOLLOWING CONTROLLERS ARE SUITABLE FOR UNCLASSIFIED LOCATIONS

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1603117 CONT.,ENCORE,iCONTROL2,6G,MAIN CONSL
1603118 CONT.,ENCORE,iCONTROL2,8G,MAIN CONSL
1603119 CONT.,ENCORE,iCONTROL2,10G,MAIN CONSL
1603120 CONT.,ENCORE,iCONTROL2,12G,MAIN CONSL
1603121 CONT.,ENCORE,iCONTROL2,14G,MAIN CONSL
1602788 CONT.,ENCORE,iCONTROL2,16G,MAIN CONSL

1603583 CONT.,ENCORE,iCONTROL2,4G,AUX CONSL
1603584 CONT.,ENCORE,iCONTROL2,6G,AUX CONSL
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1603586 CONT.,ENCORE,iCONTROL2,10G,AUX CONSL
1603587 CONT.,ENCORE,iCONTROL2,12G,AUX CONSL
1603588 CONT.,ENCORE,iCONTROL2,14G,AUX CONSL
1603589 CONT.,ENCORE,iCONTROL2,16G,AUX CONSL

1603093 KIT, AIR CONDITIONING UNIT

THE APPLICATOR AND CABLES ARE SUITABLE FOR CLASS II, DIV 1, GROUP F & G HAZARDOUS (CLASSIFIED) LOCATION OR ZONE 21 (EU):

GUNS:

1097489 GUN, BAR MT, AUTO,ENCORE
1097500 GUN, TUBE MT, AUTO,ENCORE 6 FT
1099824 GUN, TUBE MT, AUTO,ENCORE 5 FT
1606986 GUN,TUBE MT,AUTO,ENCORE,5FT PVC

OPTIONS:

1604084 EXTENSION,SPRAY,90 DEG,ENCORE
1609048 POWER SUPPLY, 100KV,POSITIVE,ENCORE


CABLES:

1097537 CABLE,AUTO,ENCORE,8M
1097539 CABLE,AUTO,ENCORE,12M
1097540 CABLE,AUTO,ENCORE,16M
1601344 CABLE,EXTENSION,ENCORE AUTO,4M

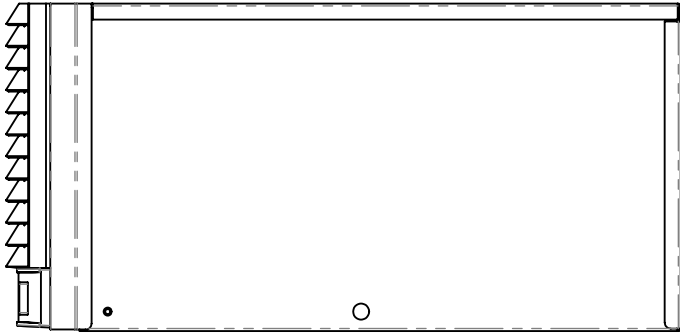
CRITICAL
No revisions permitted without approval of the proper agency

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1602788 CONT.,ENCORE,iCONTROL2,16G,MAIN CONSL

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1603584 CONT.,ENCORE,iCONTROL2,6G,AUX CONSL
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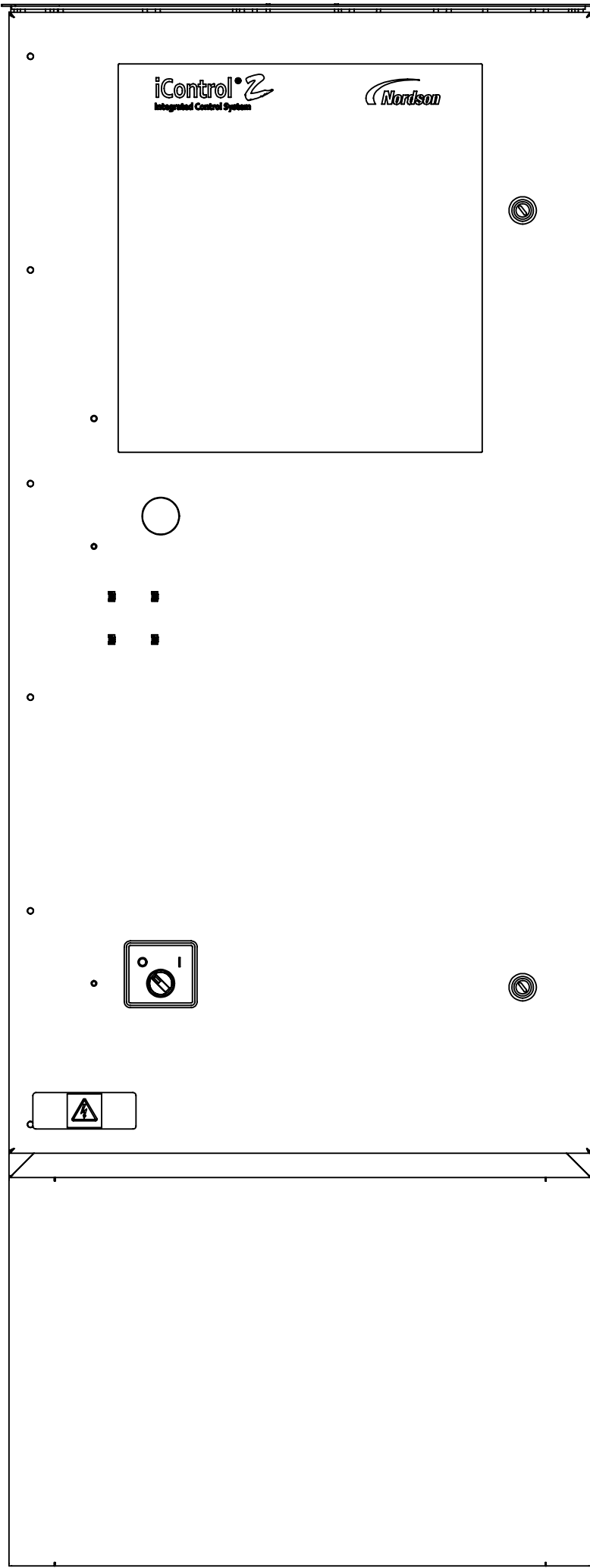
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					SHEET	1 OF 2

AIR CONDITIONING UNIT



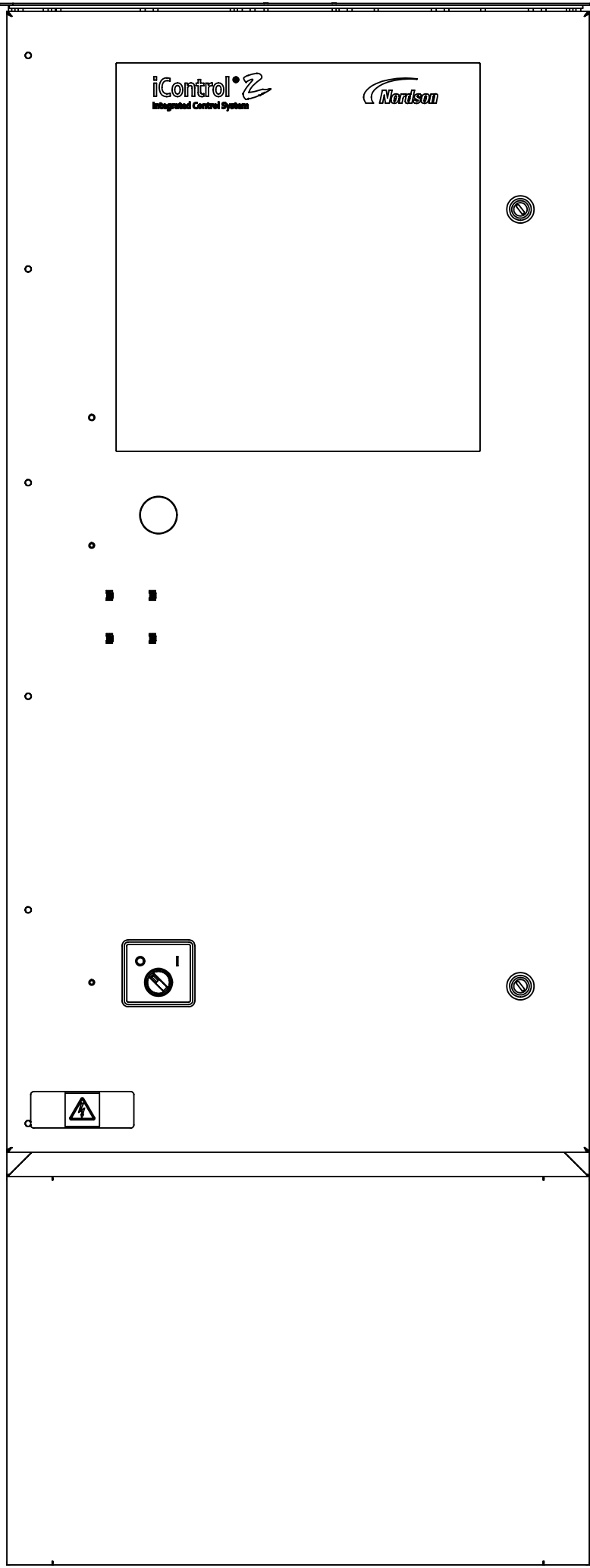
1603093 KIT, AIR CONDITIONING UNIT

MAIN CONSOLE W/ PEDESTAL



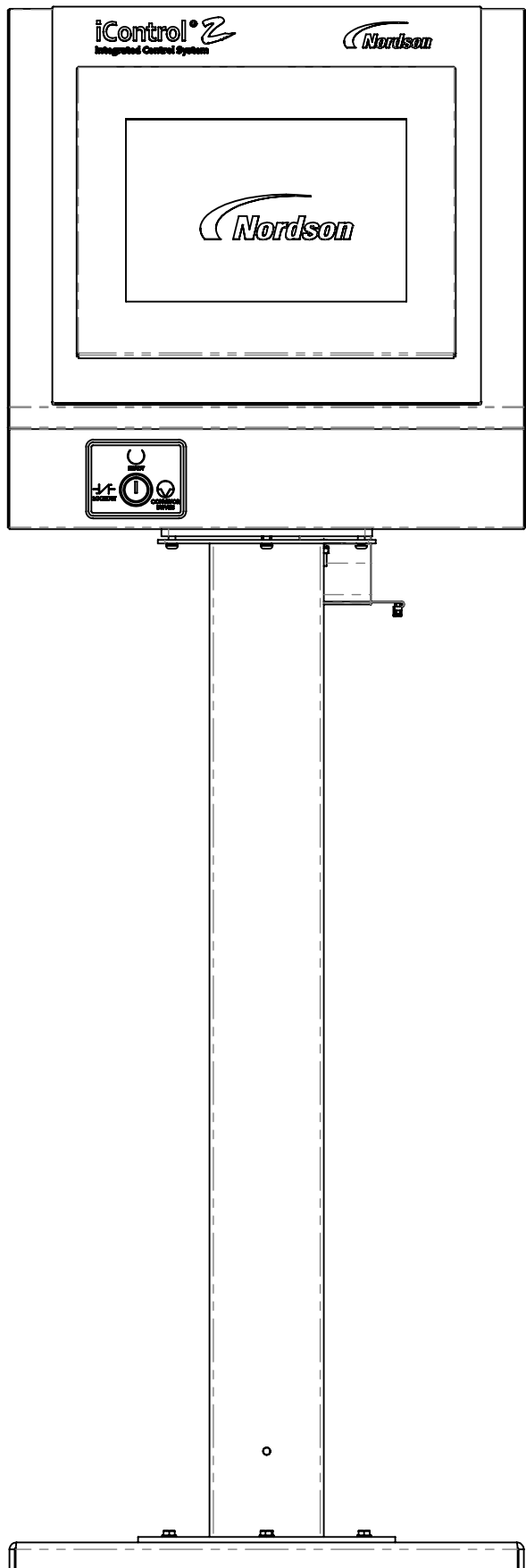
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1603126 CONT.,ENCORE,iCONTROL2,12G,MAIN W/PED
1603127 CONT.,ENCORE,iCONTROL2,14G,MAIN W/PED
1603128 CONT.,ENCORE,iCONTROL2,16G,MAIN W/PED

AUXILIARY CONSOLE



1603583 CONT.,ENCORE,iCONTROL2,4G,AUX CONSL
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1603585 CONT.,ENCORE,iCONTROL2,8G,AUX CONSL
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PEDESTAL



1602910 PEDESTAL ASSEMBLY,ENCORE,iCONTROL2

ENCORE iCONTROL 2

THE FOLLOWING CONTROLLERS ARE SUITABLE FOR UNCLASSIFIED LOCATIONS

- 1603122 CONT.,ENCORE,iCONTROL2,4G,MAIN W/PED
1603123 CONT.,ENCORE,iCONTROL2,6G,MAIN W/PED
1603124 CONT.,ENCORE,iCONTROL2,8G,MAIN W/PED
1603125 CONT.,ENCORE,iCONTROL2,10G,MAIN W/PED
1603126 CONT.,ENCORE,iCONTROL2,12G,MAIN W/PED
1603127 CONT.,ENCORE,iCONTROL2,14G,MAIN W/PED
1603128 CONT.,ENCORE,iCONTROL2,16G,MAIN W/PED

- 1603583 CONT.,ENCORE,iCONTROL2,4G,AUX CONSL
1603584 CONT.,ENCORE,iCONTROL2,6G,AUX CONSL
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1603586 CONT.,ENCORE,iCONTROL2,10G,AUX CONSL
1603587 CONT.,ENCORE,iCONTROL2,12G,AUX CONSL
1603588 CONT.,ENCORE,iCONTROL2,14G,AUX CONSL
1603589 CONT.,ENCORE,iCONTROL2,16G,AUX CONSL

1603093 KIT, AIR CONDITIONING UNIT

THE FOLLOWING CONTROLLER IS SUITABLE FOR CLASS II, DIV 2, GROUP F & G HAZARDOUS (CLASSIFIED) LOCATION OR ZONE 22 (EU):

1602910 PEDESTAL ASSEMBLY,ENCORE,iCONTROL2

THE APPLICATOR AND CABLES ARE SUITABLE FOR CLASS II, DIV 1, GROUP F & G HAZARDOUS (CLASSIFIED) LOCATION OR ZONE 21 (EU):

GUNS:

- 1097489 GUN, BAR MT, AUTO,ENCORE
1097500 GUN, TUBE MT, AUTO,ENCORE 6 FT
1099824 GUN, TUBE MT, AUTO,ENCORE 5 FT
1606986 GUN,TUBE MT,AUTO,ENCORE,5FT PVC

OPTIONS:

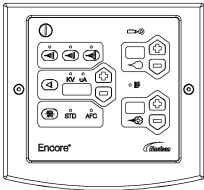
- 1604084 EXTENSION,SPRAY,90 DEG,ENCORE
1609048 POWER SUPPLY, 100KV,POSITIVE,ENCORE

CABLES:

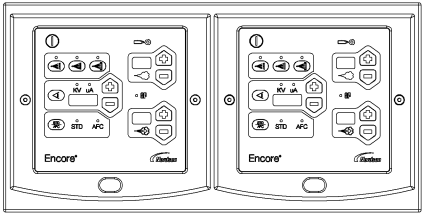
- 1097537 CABLE,AUTO,ENCORE,8M
1097539 CABLE,AUTO,ENCORE,12M
1097540 CABLE,AUTO,ENCORE,16M
1601344 CABLE,EXTENSION,ENCORE AUTO,4M

CRITICAL
No revisions permitted without approval of the proper agency

ALL DIMENSIONS IN INCHES EXCEPT AS NOTED		NORDSON CORPORATION WESTLAKE, OH, U.S.A. 44145			
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THIRD ANGLE PROJECTION		SCALE 1:6		CADD GENERATED DWG.	
		SHEET 2		OF 2	



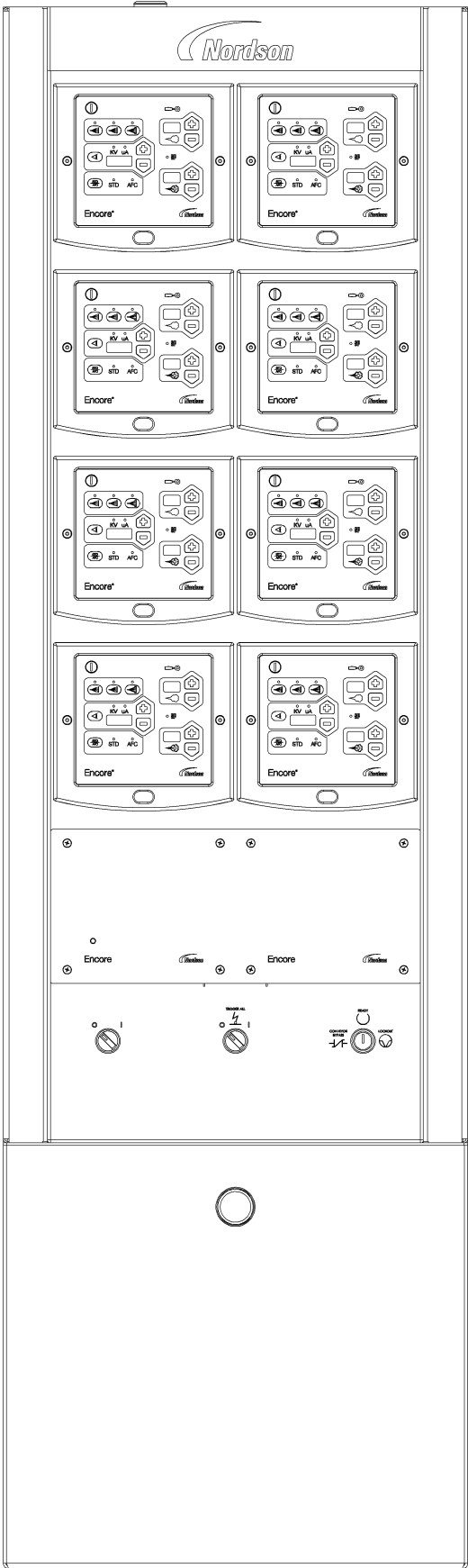
ENCORE AUTO CONTROLLER
SINGLE GUN



ENCORE AUTO CONTROLLER
2-GUN

THE FOLLOWING CONTROLLERS ARE SUITABLE FOR CLASS II, DIV 2, GROUP F & G HAZARDOUS (CLASSIFIED) LOCATIONS, OR ZONE 22 IN (EU):	
1107870	CONTROLLER ASSY,1 GUN,ENCORE AUTO,PKGD
1107702	CONTROLLER ASSY,2 GUN,ENCORE AUTO,PKGD
1107792	CONTROLLER,4 GUN,ENCORE AUTO
1107794	CONTROLLER,6 GUN,ENCORE AUTO
1107795	CONTROLLER,8 GUN,ENCORE AUTO

THE APPLICATORS AND CABLES ARE SUITABLE FOR CLASS II, DIV 1, GROUP F & G HAZARDOUS (CLASSIFIED) LOCATIONS, OR ZONE 21 (EU):	
GUNS:	
1097489	GUN,BAR MT,AUTO,ENCORE
1099824	GUN,TUBE MT,AUTO,ENCORE,5FT
1097500	GUN,TUBE MT,AUTO,ENCORE,6FT
1606986	GUN,TUBE MT,AUTO,ENCORE,5FT PVC
OPTIONS:	
1604084	EXTENSION,SPRAY,90 DEGREE,ENCORE
1609048	POS MULTIPLIER
CABLES:	
1097537	CABLE,AUTO,ENCORE,8M
1097539	CABLE,AUTO,ENCORE,12M
1097540	CABLE,AUTO,ENCORE,16M
1601344	CABLE,EXTENSION,ENCORE AUTO,4M



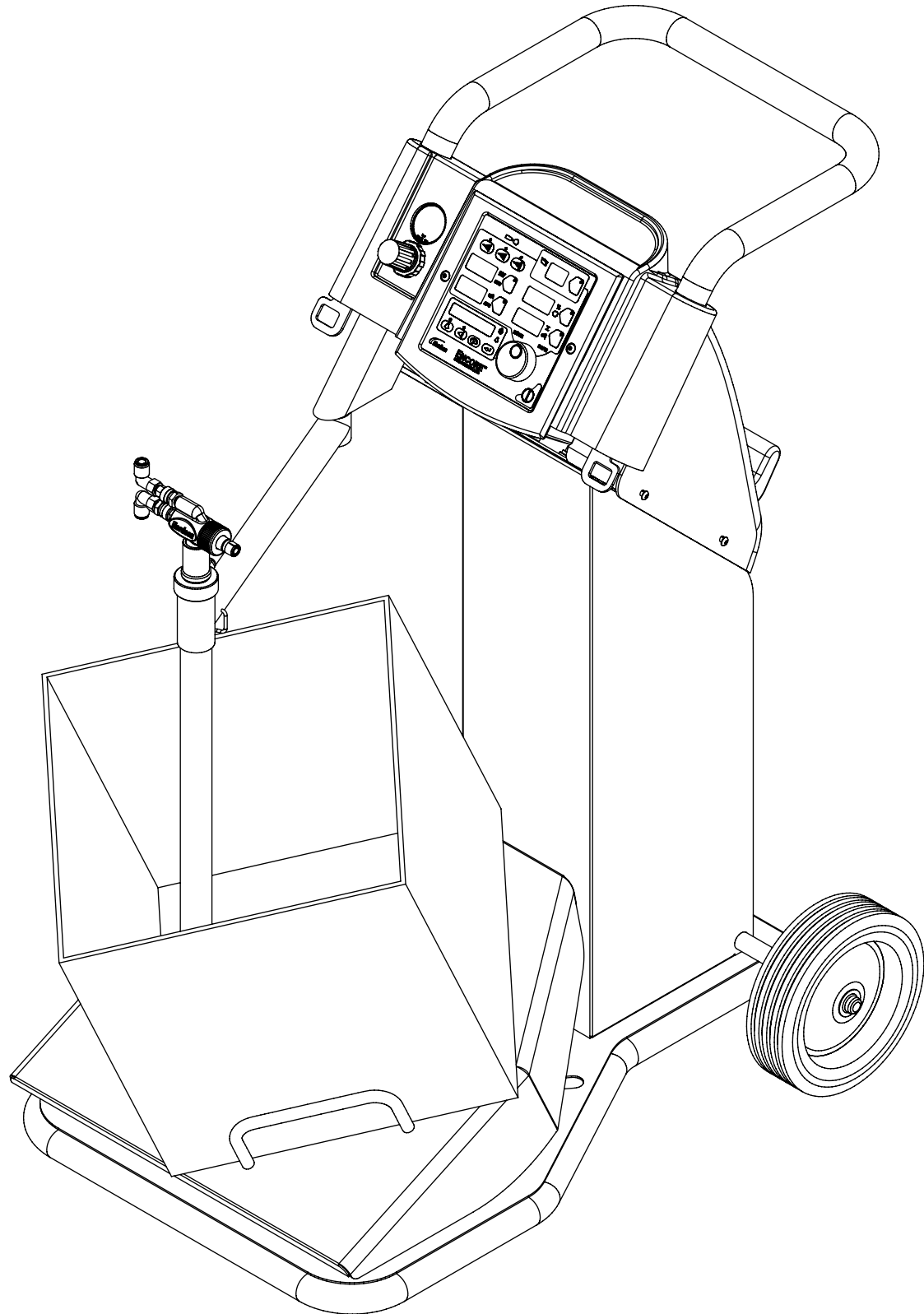
ENCORE AUTO CONTROLLER
4, 6 or 8-GUN

MATERIAL NO.		1107700	06	REVISION		1
ZONE	REV	DESCRIPTION		BY	CHK	RELEASE NO.
	00	ISSUED		DRJ		PE602433
	01	RELEASED		TAL		PE602493
	02	ADDED P/N 1600809 TO TABLE AS SHOWN		MHH	BP	PE602719
	03	REMOVED P/N 1600809 FROM TABLE		MHH	DLU	PE603436
	04	ADDED OPTIONS TO TABLE AND ADDED P/N 1601344.		BDM	BDM	PE603158
	05	05J ADDED 1606986 TO TABLE		MB	BF	PE604134
	06	06JREPLACED THE TWO AXIS CONTROLS WITH 2 GUN CONTROLS, REMOVED REF TO AXIS CONTROL, ADDED POS KV MULTIPLIER		RF	RJF	PE605047
						11NOV10

CRITICAL
No revisions permitted without
approval of the proper agency.

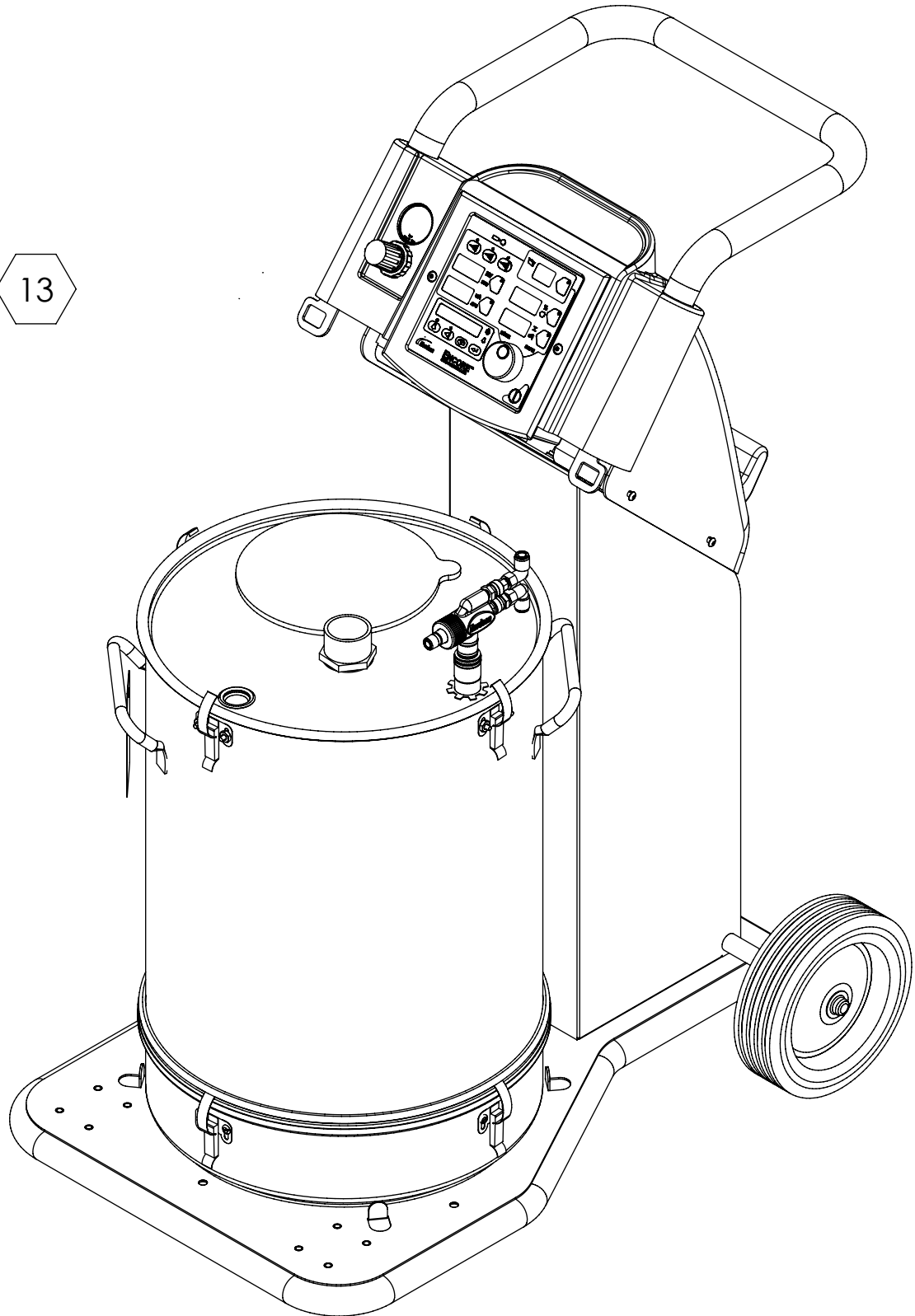
ALL DIMENSIONS IN MM EXCEPT AS NOTED		NORDSON CORPORATION WESTLAKE, OH, U.S.A. 44145			
X25.0 X320.25 X320.13		DESCRIPTION			
MACHINED SURFACES 1.6		REF DWG,APPROVED EQUIPMENT,ENCORE AUTO			
BREAK INSIDE/OUTSIDE CORNERS 0.1/0.8		DRAWN BY	DATE	RELEASE NO.	
THREAD LENGTH DIMENSIONS ARE FULL THREAD		DRJ	11NOV10	PE602493	
INTERPRET DRAWINGS PER ASME Y14.5-1994		CHECKED BY	APPROVED BY		
PERFECT FORM AT MMC REQUIRED FOR INTERRELATED FEATURES		SIDE	FILE NAME	MATERIAL NO.	REVISION
THIRD ANGLE PROJECTION		D	PD12165	1107700	06
		SCALE	1:4	SOLIDWORKS GENERATED DWG.	SHEET 1 OF 1

ZONE	REV	DESCRIPTION	BY	CHK	RELEASE NO.	DATE	
A00	00	PRELIMINARY.	DRJ			11JAN08	
A01	01	RELEASED FOR PRODUCTION.	DRJ	RJF	PE600468	14JAN08	
A02	02	ADDED ZONES 21 & 22, & MOBILE SYSTEM SPECS.	DRJ	RJF	PE600575	01FEB08	
A03	03	ADDED 6M CABLE EXTENSION (SHEET 1); ADDED MOBILE SYSTEM WITH 25-LB. HOPPER (SHEET 2).	DC	DY	PE600552	21FEB08	
A04	04	REDRAWN IN CURRENT FORMAT; ADDED ATEX-APPROVED VERSIONS OF INTERFACE CONTROL UNIT, HANDGUN, 115V & 220V VBF SYSTEMS, AND 50-AND 25-LB HOPPER SYSTEMS; REDESIGNED APPROVED REMOVED SPECIFICATIONS TABLES (SHEETS 1 & 2); REMOVED MOTORS FROM SPECIFICATION TABLES & ADDED MFR'S CERTIFICATION NO.	DC	RJF	PE600806	30MAY08	
A05	05	REMOVED FM-APPROVED HANDGUN ASSY 1083120 FROM APPROVED EQUIPMENT LISTING (SHEETS 1 & 2).	DC	RJF	PE601120	30JUL08	
CS	A06	06	PART NUMBER ERROR CORRECTION (SHEET 2).	DC	RJF	PE601509	12MAR09
A07	07	REMOVED 1082819, 1082843, 1082844, 1084512, 1084514, 1084517, 1087272, 1087273, 1087274, & 1087275; ADDED 1097072, 1097073, 1097074, & 1097075; UPDATED MPS PICTORIALS.	DRJ	RJF	PE601681	04AUG09	
A08	08	12	REMOVED ENCORE HANDGUN PICTORIALY, NEW ENCORE HANDGUN PART NUMBERS UPDATED IN APPROVED EQUIPMENT TABLES.	BB	BDM	PE602105	14JUN10
10	09	UPDATE PG. 1 & 2 FOR NEW 230V P/N					
11	10	UPDATE VIBRATORY MOTOR VIEW, P.G.2	DM	DU	PE602591	05AUG11	
12	11	1600745 WAS 1102625	DM	BP	PE602297	28NOV11	
12	12	REV'D DESCRPTN, TABLES AND ASSEMBLIES TO REFLECT 'XT' VERSION (SHEETS 1 & 2)	MHH	BDM	PE602609	07FEB12	
13	13	REMOVED ENCORE XT CONTROLLER 1087276 & ADDED 1604125; UPDATED MOBILE SYSTEM VIEWS.	DC	RJF	PE603075	22OCT13	
14	14	ADDED "HD" PRODUCTS & "XT" DESIGNATIONS UPDATE TABLES, MOTOR CERT # WAS TUV05ATEX2768X(PG.2)	MB	RJF	PE603483	05MAR15	
15	15	ADDED ITEM 1609709, CHANGED PART# 1606272 TO 1606978 AND PART#160621 TO 1606977	NHY	TF	PE604849	24MAY16	
16	16	ADDED POS KV MULTIPLIER (1609048) SHT 1. CORRECTED TABLE ENTRIES FOR 1606978 AND 1606977; BOTH SHEETS: ADDED TABLE ROWS FOR HD+ PUMP, ADDED NOTES FOR HD+ OPTION;	RF	RJF	PE605057	01NOV16	
17	17	ADDED: 18) OPTIONAL LED LIGHT; 19) BOM P/N'S W/ LED	EW	BF	PE605057	21NOV17	
			TAL	BDM	PE-100225	22MAY18	



**ENCORE 115V 60Hz & 230V 50Hz VBF
MOBILE POWDER SYSTEMS
1600827 OR 1600828
1613882 OR 1613884 (W/nLIGHTEN)**

HEIGHT: 1078 [42.5]
WEIGHT: 50.8kg [112lbs]
wheel base: 620 [24.4] L X 511.5 [20.1] W



**ENCORE XT 50LB HOPPER
MOBILE POWDER SYSTEM
1600829 OR 1613885 (W/nLIGHTEN)**

HEIGHT: 1078 [42.5]
WEIGHT: 54.4kg [120lbs]
wheel base: 620 [24.4] L X 511.5 [20.1] W

**ENCORE HD 115V & 230V VBF
MOBILE POWDER SYSTEMS
1605588 OR 1605589 FOR HD PUMP
1611076 OR 1611079 FOR HD+ PUMP
1613900 OR 1613901 FOR HD PUMP (W/nLIGHTEN)
1613905 OR 1613906 FOR HD+ PUMP (W/nLIGHTEN)**

HEIGHT: 1078 [42.5]
WEIGHT: 50.8kg [112lbs]
wheel base: 620 [24.4] L X 511.5 [20.1] W

**ENCORE HD 115V & 230V HYBRID VBF
(WITH PRODIGY) MOBILE POWDER SYSTEMS
1606274 OR 1606275**

HEIGHT: 1078 [42.5]
WEIGHT: 50.8kg [112lbs]
wheel base: 620 [24.4] L X 511.5 [20.1] W

**ENCORE XT 25LB HOPPER
MOBILE POWDER SYSTEM
1600830 OR 1613886 (W/nLIGHTEN)**

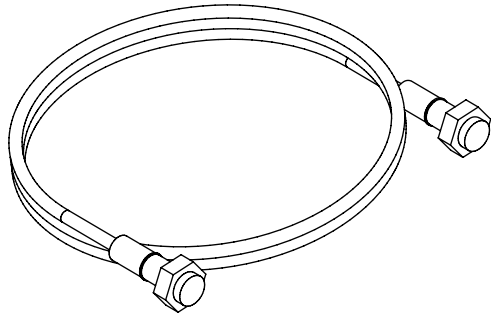
HEIGHT: 1078 [42.5]
WEIGHT: 53kg [117lbs]
wheel base: 620 [24.4] L X 511.5 [20.1] W

**ENCORE HD 50LB HOPPER
MOBILE POWDER SYSTEMS
1605587 FOR HD PUMP
1611246 FOR HD+ PUMP
1613899 FOR HD PUMP (W/nLIGHTEN)
1613910 FOR HD+ PUMP (W/nLIGHTEN)**

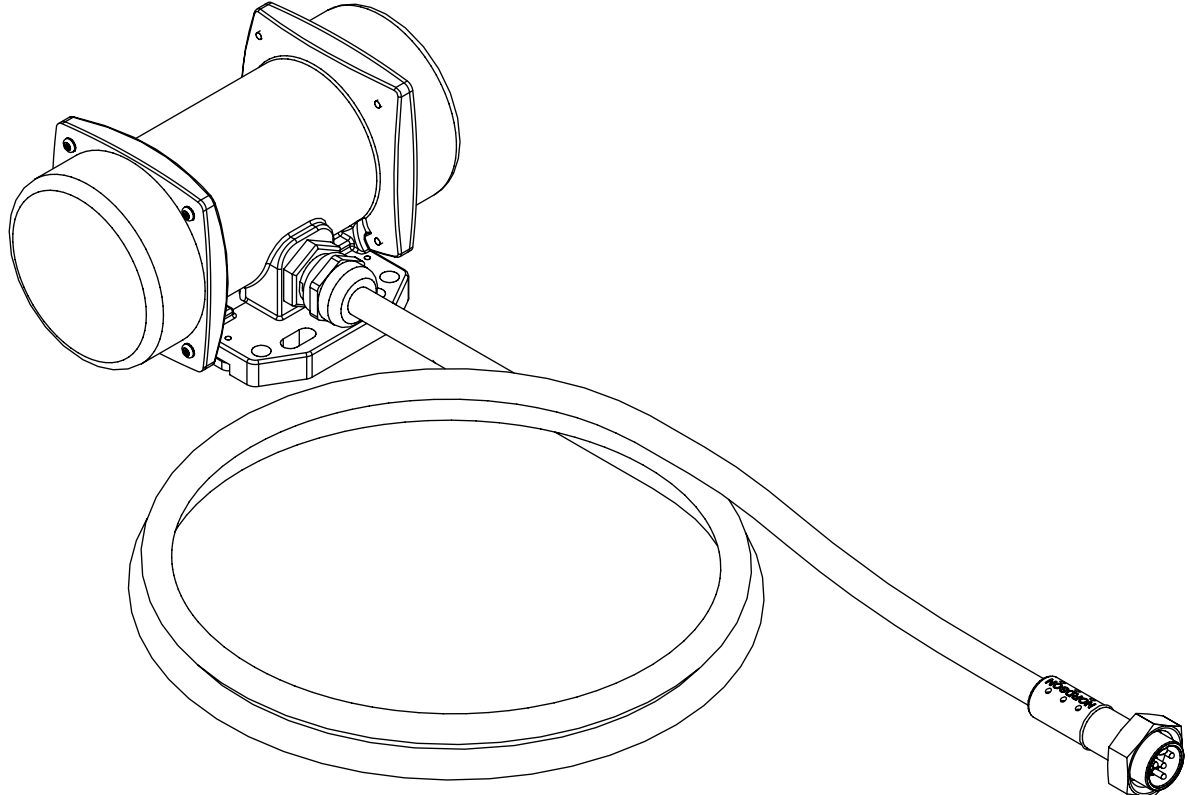
HEIGHT: 1078 [42.5]
WEIGHT: 54.4kg [120lbs]
wheel base: 620 [24.4] L X 511.5 [20.1] W

**ENCORE HD HYBRID 50LB HOPPER
MOBILE POWDER SYSTEMS (WITH PRODIGY)
1606273**

HEIGHT: 1078 [42.5]
WEIGHT: 54.4kg [120lbs]
wheel base: 620 [24.4] L X 511.5 [20.1] W



**CONTROLLER INTERFACE CABLE
1080718-10 FT.
1609709-50FT.
1080719-30 IN.**



**115V VIBRATOR MOTOR 1604511
230V VIBRATOR MOTOR 1080950**

WITH EXTRA-HARD USAGE ELECTRICAL CORD
UL/CSA APPROVED 18 AWG 90°C

MANUFACTURER'S CERT. #: TUV12ATEX094817
ALSO: ETL CERTIFIED FOR U.S & CANADA

	PART NUMBER	DESCRIPTION	cFMus	ATEX	cFMus / ATEX
THE FOLLOWING MOBILE SYSTEMS ARE SUITABLE FOR CLASS II, DIV. 2, Goup F & G HAZARDOUS (CLASSIFIED) LOCATIONS OR ZONE 22. THE MANUAL GUNS AND GUN CABLES ATTACHED TO THE MOBILE SYSTEM, ARE SUITABLE FOR USE IN A CLASS II, DIV. 1, GROUP F & G HAZARDOUS (CLASSIFIED) LOCATION OR ZONE 21.	1600827	ENCORE XT MOBILE SYSTEMS WITH 115V, 60HZ VBF	X		
	1613882	SYS,MOBILE POWDER,115V VBF,ENCORE XT,LED	X		
	1600828	ENCORE XT MOBILE SYSTEMS WITH 230V, 50HZ VBF		X	
	1613884	SYS,MOBILE POWDER,230V VBF,ENCORE XT,LED	X		
	1605588	ENCORE HD MOBILE SYSTEMS WITH 115V, 60HZ VBF WITH HD PUMP	X		
	1613900	SYS,MOBILE POWDER,115V VBF,ENCORE HD,LED	X		
	1605589	ENCORE HD MOBILE SYSTEMS WITH 230V, 50HZ VBF WITH HD PUMP		X	
	1613901	SYS,MOBILE POWDER,230V VBF,ENCORE HD,LED	X		
	1606274	ENCORE HD HYBRID MOBILE SYSTEMS WITH 115V, 60HZ VBF WITH PRODIGY PUMP	X		
	1606275	ENCORE HD HYBRID MOBILE SYSTEMS WITH 230V, 50HZ VBF WITH PRODIGY PUMP		X	
	1611076	ENCORE HD MOBILE SYSTEM WITH 115V, 50 HZ VBF WITH HD+ PUMP	X		
	1613905	SYS,MBL PWDR,115VBF,ENCORE HD,HI-FLO,LED	X		
	1611079	ENCORE HD MOBILE SYSTEM WITH 230V, 50 HZ VBF WITH HD+ PUMP		X	
	1613906	SYS,MBL PWDR,115VBF,ENCORE HD,HI-FLO,LED	X		
	1600829	ENCORE XT MOBILE SYSTEM WITH 50 LB HOPPER			X
	1613885	SYS,MOBILE PWDR,50-LB HOP,ENCORE XT,LED	X		
	1600830	ENCORE XT MOBILE SYSTEM WITH 25 LB HOPPER			X
	1613886	SYS,MOBILE PWDR,25-LB HOP,ENCORE XT,LED	X		
	1605587	ENCORE HD MOBILE SYSTEM WITH 50 LB HOPPER AND HD PUMP			X
	1613899	SYS,MOBILE PWDR,50 LB HOPR,ENCORE HD,LED	X		
	1606273	ENCORE HD MOBILE SYSTEM WITH 50 LB HOPPER AND PRODIGY PUMP			X
	1611246	ENCORE HD MOBILE SYSTEM WITH 50 LB HOPPER AND HD+ PUMP			X
	1613910	SYS,MBL PWDR,50 LB HOP,ENCORE HDXD,LED	X		

CRITICAL
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approval of the proper agency.**

ALL DIMENSIONS IN MM EXCEPT AS NOTED		NORDSON CORPORATION WESTLAKE, OH, U.S.A. 44145			
X45.8 X40.25 X39.513 MACHINED SURFACES BREAK INSIDE/OUTSIDE CORNERS 8 R/0.8 THREAD LENGTH DIMENSIONS ARE FULL THREAD INTERPRET DRAWINGS PER ASME Y14.5-1994 PERFECT FORM AT MMC REQUIRED FOR INTERRELATED FEATURES THIRD ANGLE PROJECTION		DESCRIPTION REF DWG,APVD EQUIP,MANUAL ENCORE XT HD			
DRAWN BY DRJ		DATE 11JAN08		RELEASE NO. PE600468	
CHECKED BY RJF		APPROVED BY RJF			
SIZE D		FILE NAME 1084547		MATERIAL NO. 1084547	
REVISION 19		SCALE NOT TO SCALE		SOLIDWORKS GENERATED DWG.	
SHEET 2		OF 2			