Encore® Automatic Powder Spray Guns

Customer Product Manual

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OBSOLETE

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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NORDSON CORPORATION • AMHERST, OHIO • USA

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Change Record

Revision	Date	Change
06	01/14	Page 34 and 37 - Added electrode assembly, flat spray Page 42 - Added conical nozzle kit and conical electrode assembly
07	05/14	Page 43 - Added angled spray extension options
08	06/14	New socket head screws, new nozzle P/N's
09	07/14	New flat and conical electrode holders
10	08/14	New mount tube part number
11	09/14	Bar mount adapter assembly drawing revision
12	01/16	Revised for use with Encore XT controllers
13	10/16	Nozzle part number change and ion collector plug added
14	2/18	Added label changes.
15	9/17	Change part number 1003572 to 1612462.
16	7/18	Added Encore XD electrode support option. Change part number 1606985 to 1606986, updated power supply resistance test
17	3/19	Page 34 - New part numbers for 5-foot tube-mount spray guns
18	7/21	Updated o-ring 940156 to 1036432
18 Update	11/21	Updated power supply resistence test figure.
19	2/22	Page 38 - Removed callout 27 (ball). Page 39 - Removed item 27 (ball) from parts list.
20	5/22	Updated UKCA Compliance.
21	12/23	Updated range for resistence test.

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 of 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

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 µA

- Air Quality: <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

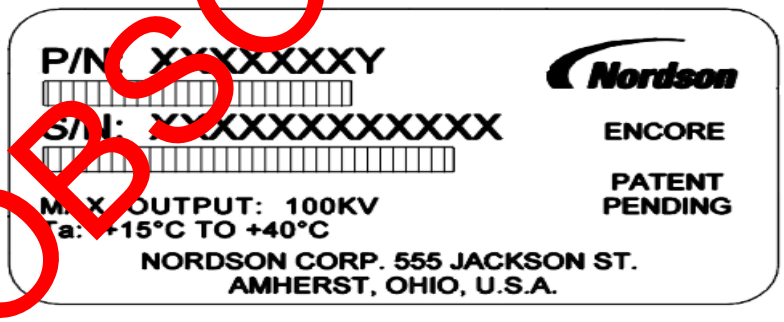
Specifications (contd)

Encore Automatic Spray Guns

Applicator Certification Label

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.



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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 these components.

Dimensions and Weights

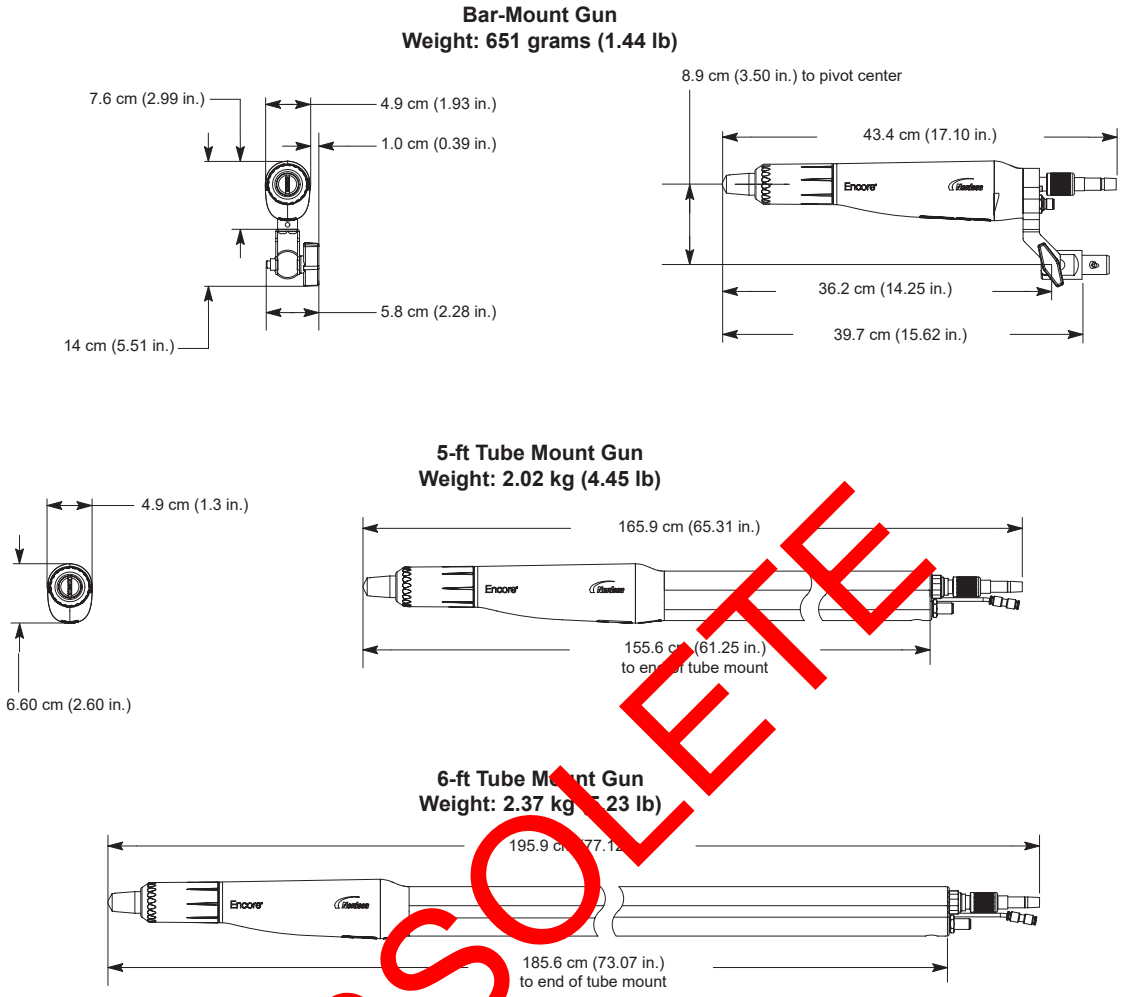


Figure 2 Encore Automatic Gun Dimensions and Weights

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.

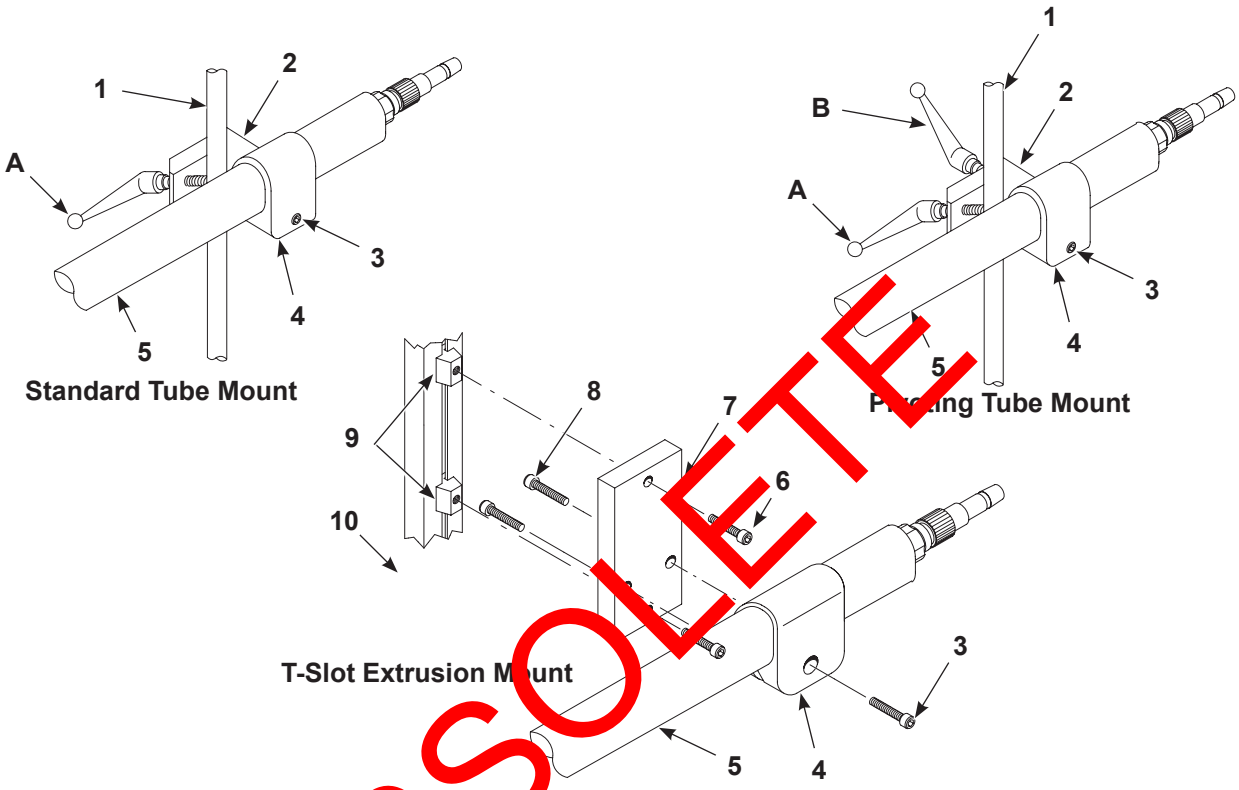


Figure 3 Tube-Mount Gun Mounting Assemblies

1. Mounting bar 25.4-mm (1-in.)
2. Clamp
3. Clamping screw
4. Mounting sleeve
5. Gun mounting tube
6. M8 x 30 screws
7. Support plate
8. 3/8-16 x 1-in. long screws
9. T-slot nuts
10. T-slot extrusion (see Note)

A. Clamping handle

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).

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).

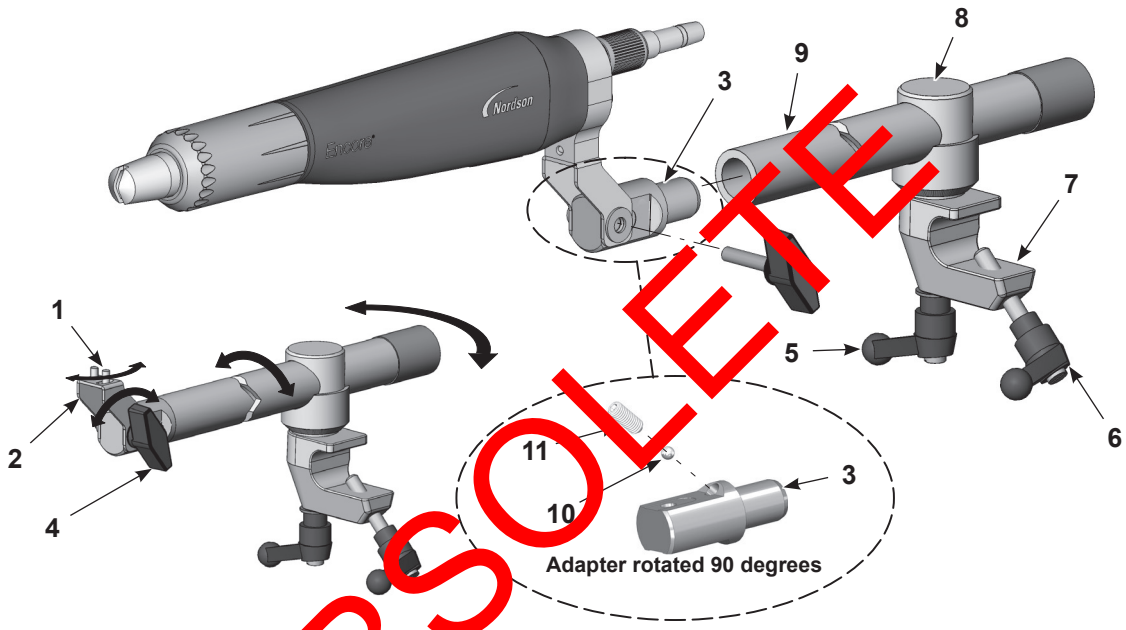


Figure 4 Bar-Mount Gun Mounting

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

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.

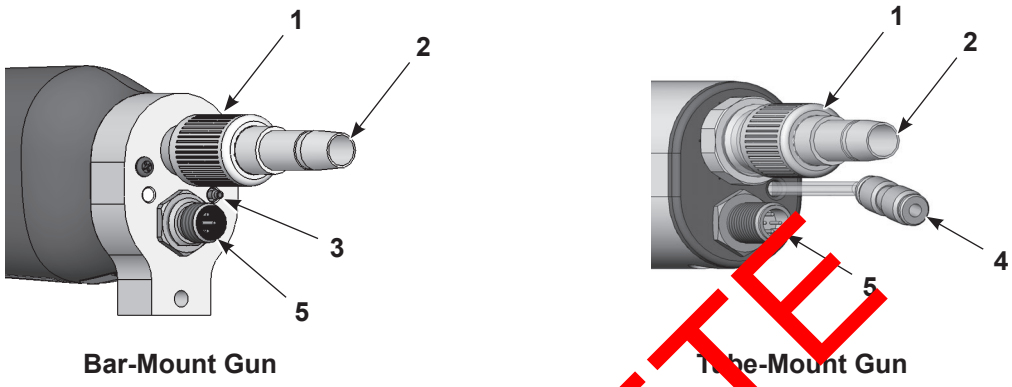


Figure 5 Gun Connections − Bar Mount and Tube-Mount Guns

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

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 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).

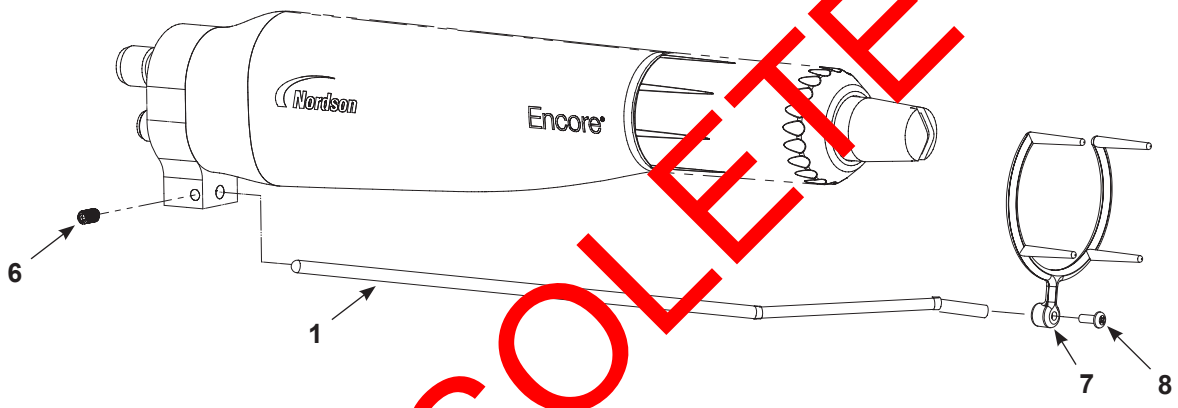


Figure 6 Ion Collector Installation − Bar Mount Gun

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 25 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).

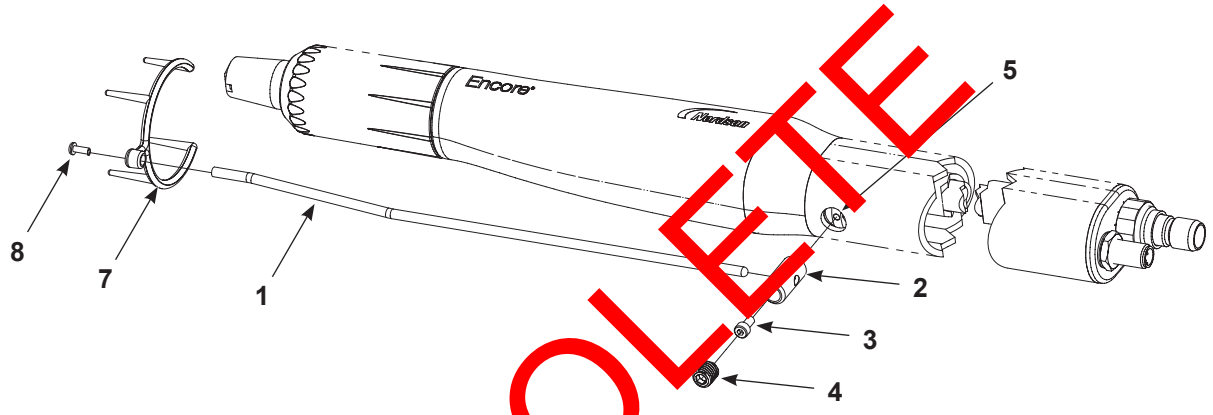


Figure 7 Ion Collector Installation − Tube Mount Gun

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

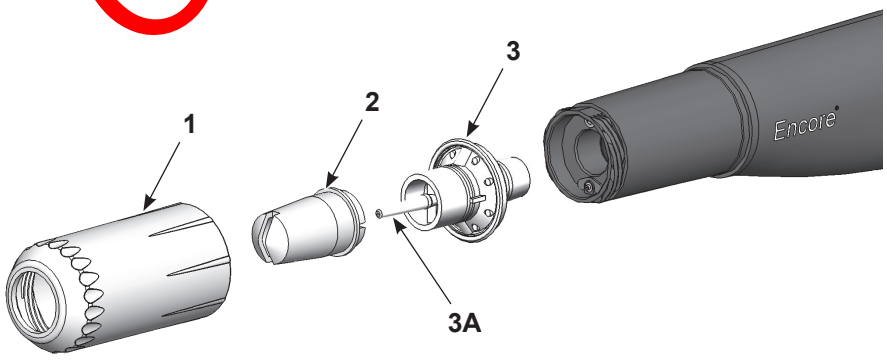


Figure 8 Flat Spray Nozzle Removal and Installation

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.

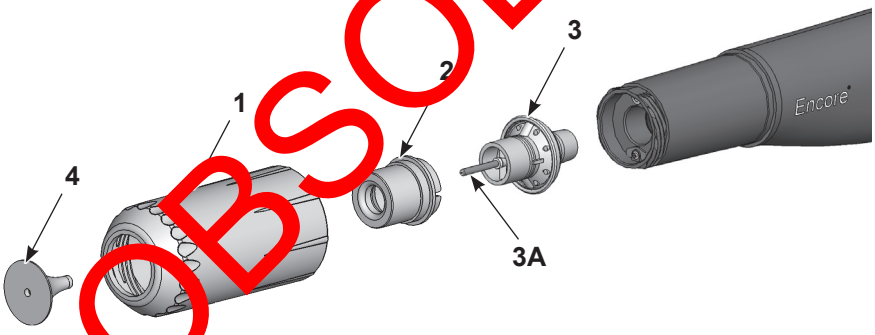


Figure 9 Changing Optional Deflectors and Conical Nozzles

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.

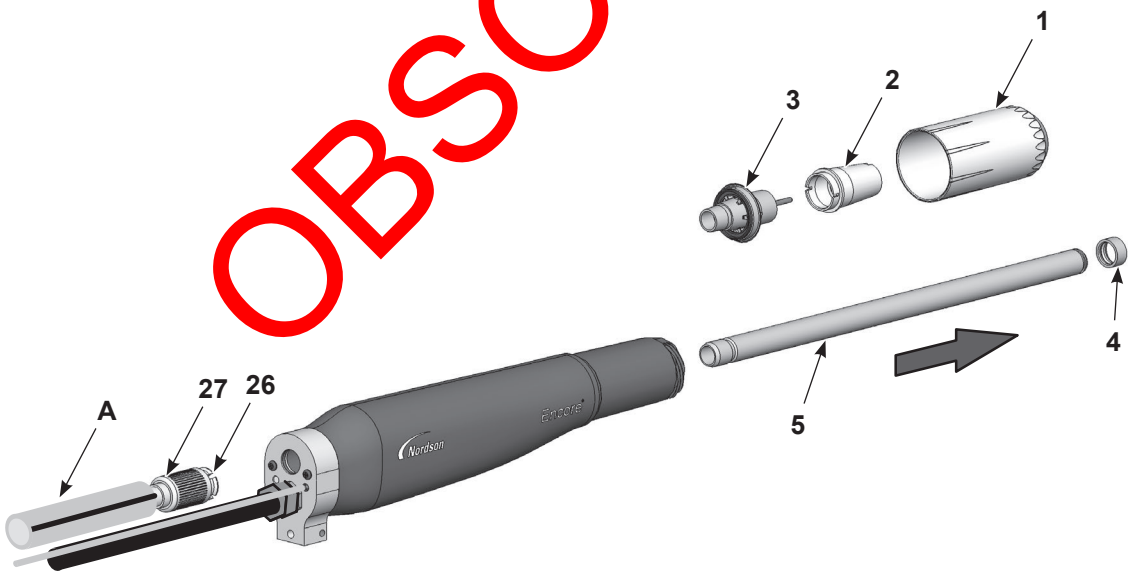


Figure 10 Maintenance − Bar-Mount Gun Shown without Pivot Mount

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

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 21. 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 *Cable Continuity Checks* on page 22. If an open or short is found, replace the cable.
	Spray gun power supply shorted	Perform the *Power Supply Resistance Test* 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 *Power Supply Resistance Test* on page 21.
	Damaged gun cable	Perform the *Cable Continuity Test* 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 *iFlow Air Flow Verification Kit* 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 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	Check 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.

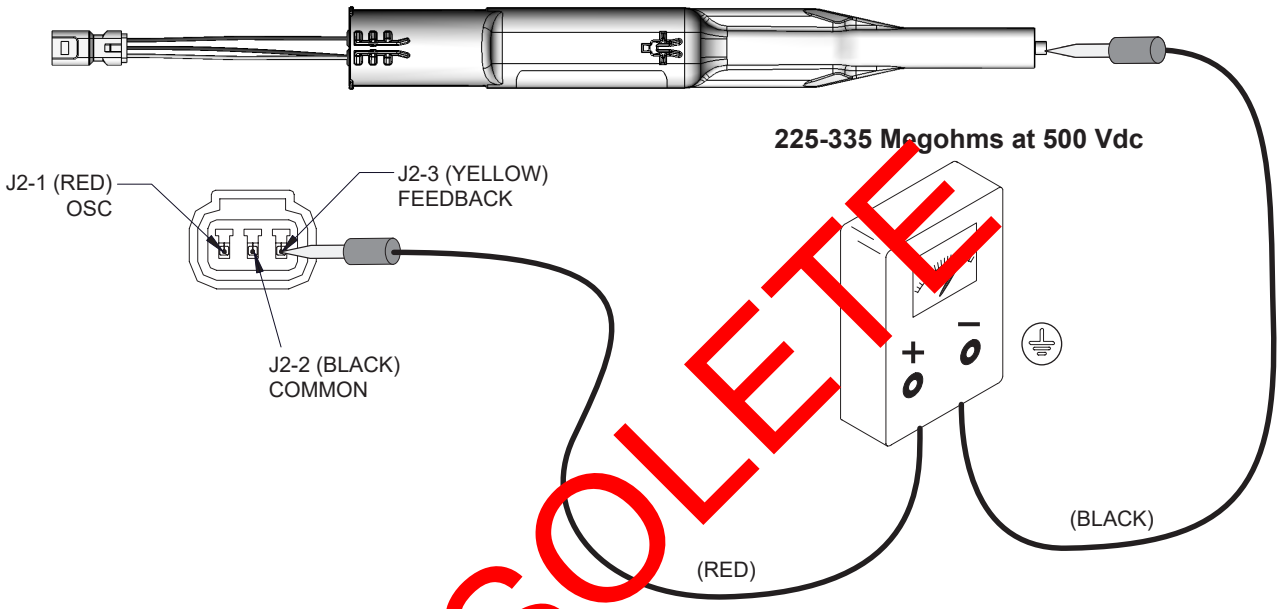


Figure 11 Power Supply Resistance Test (shown for a negative power supply)

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 19−23 meg ohms. If the resistance is out of this range replace the electrode assembly.

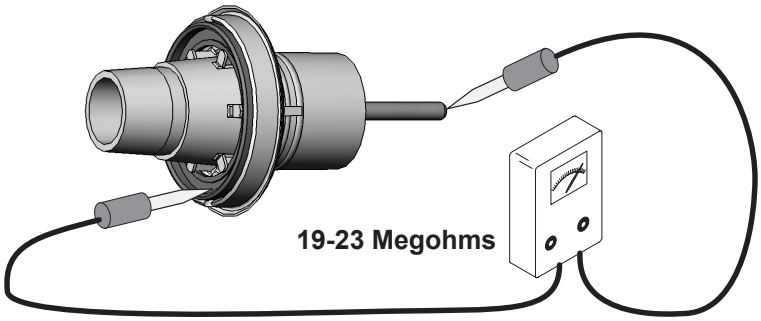


Figure 12 Electrode Assembly Resistance Test

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.

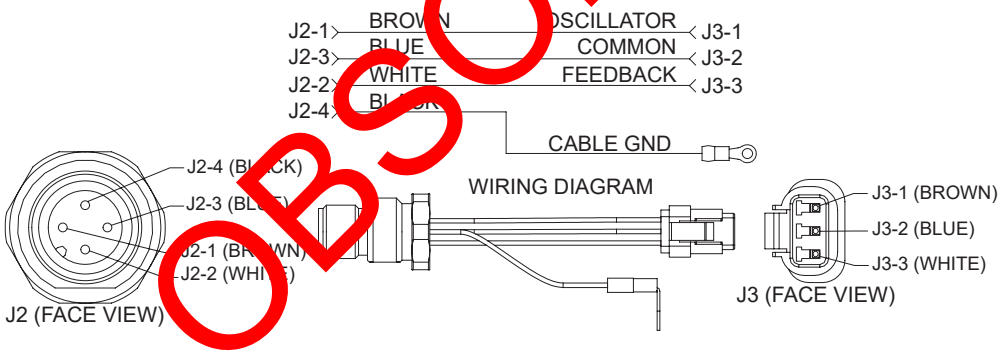


Figure 13 Gun Receptacle Harness

Gun Extension Cable

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

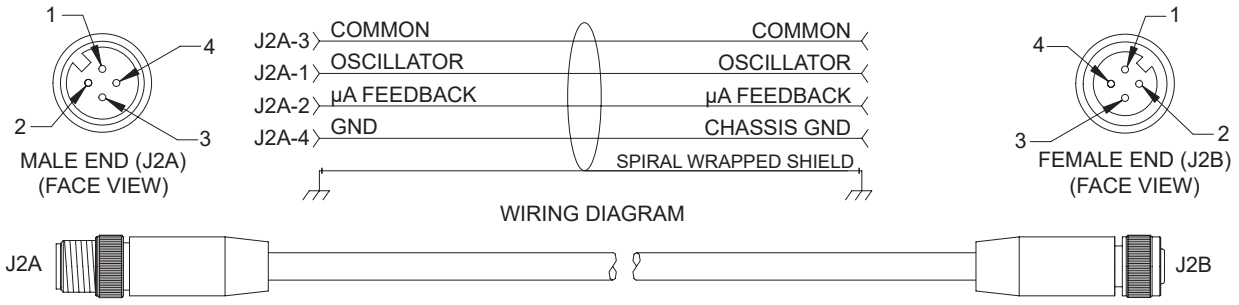
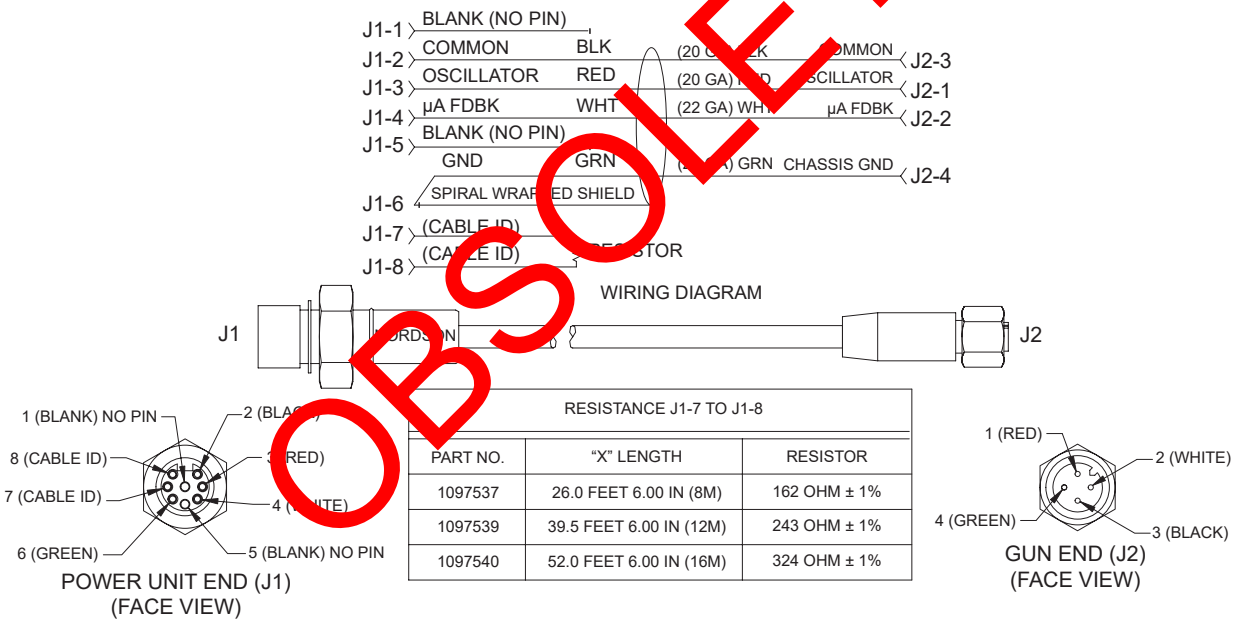


Figure 14 Gun Extension Cable

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.



RESISTANCE J1-7 TO J1-8

PART NO.	"X" LENGTH	RESISTOR
1097537	26.0 FEET 6.00 IN (8M)	162 OHM ± 1%
1097539	39.5 FEET 6.00 IN (12M)	243 OHM ± 1%
1097540	52.0 FEET 6.00 IN (16M)	324 OHM ± 1%

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

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 24.
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.

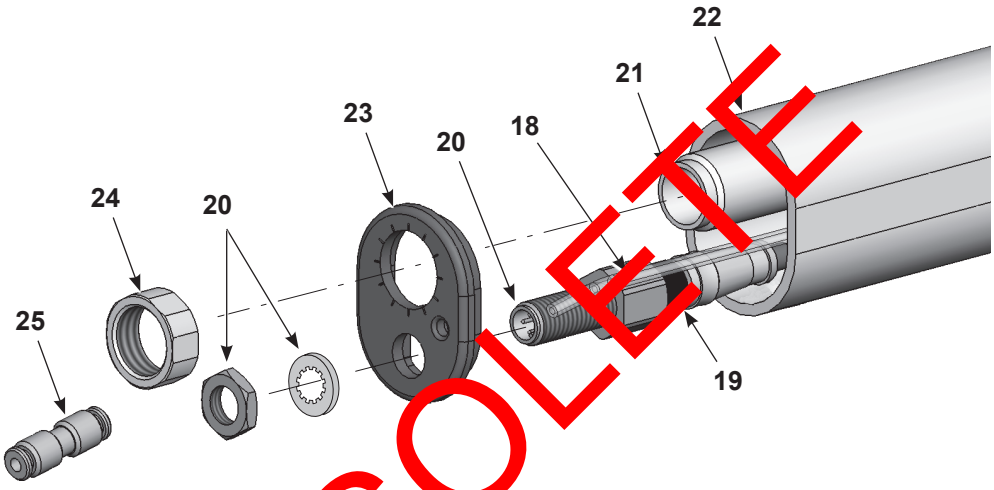


Figure 17 Tube-Mount Gun Disassembly 1 of 5

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

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.

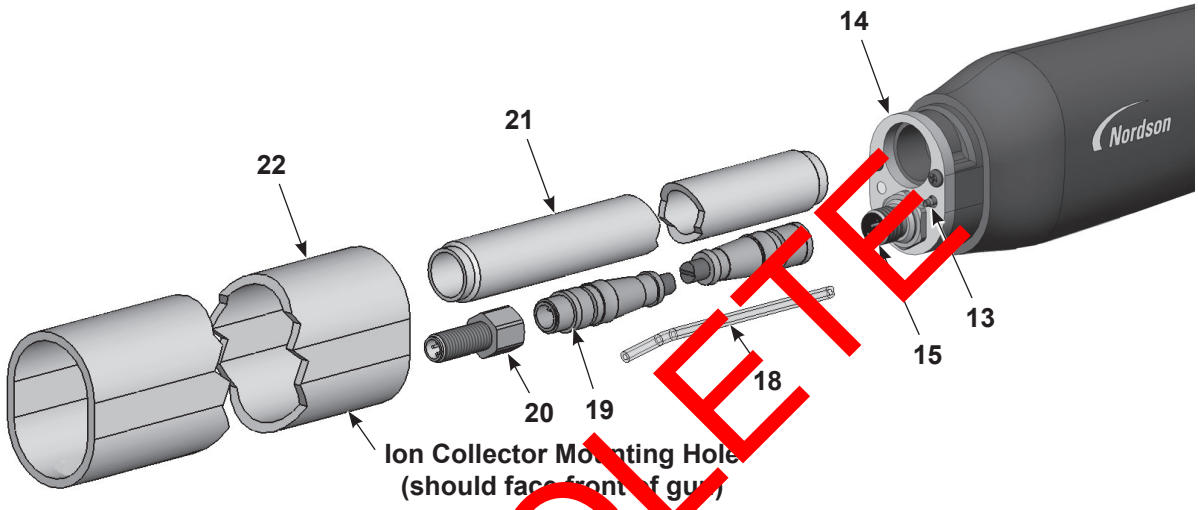


Figure 18 Tube-Mount Gun Disassembly 2 of 5

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

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.

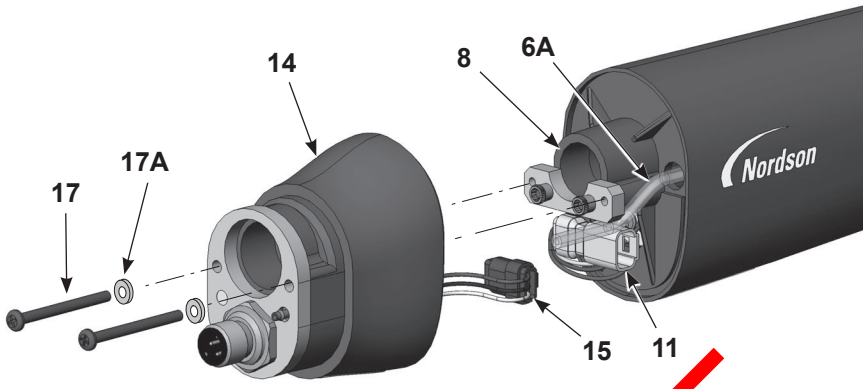


Figure 19 Tube-Mount Gun Disassembly 3 of 5

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

14. See Figure 20. With a 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.
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.

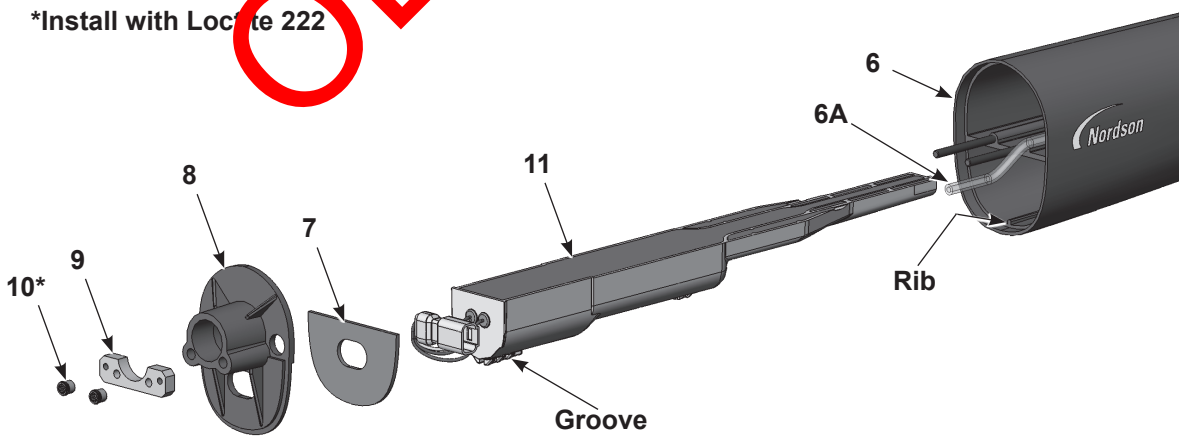


Figure 20 Tube-Mount Gun Disassembly 4 of 5

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

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).

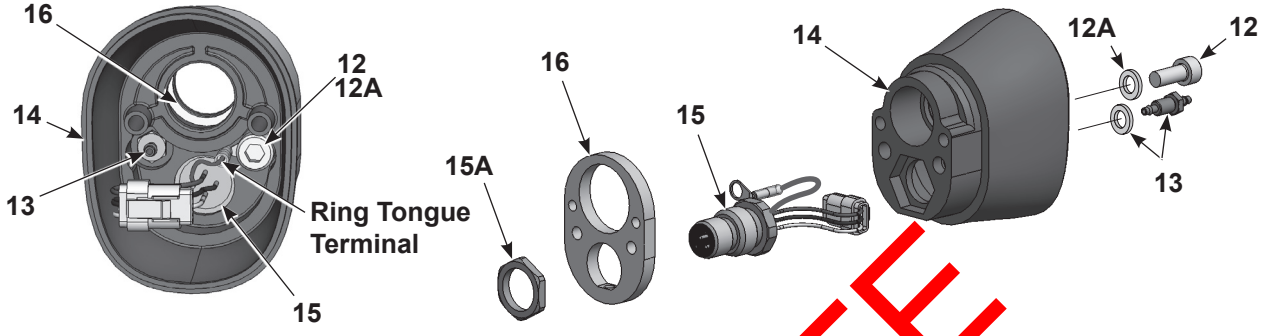


Figure 21 Tube-Mount Gun Disassembly 5 of 5

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

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 24.

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 24.
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.

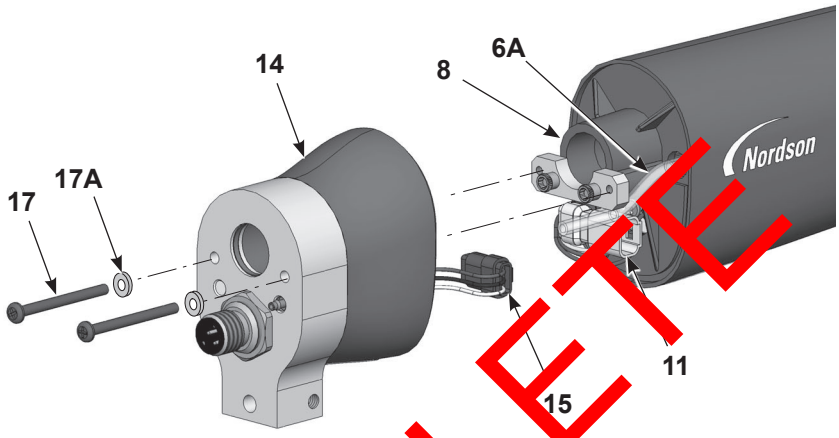


Figure 22 Bar-Mount Gun Disassembly 1 of 3

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

4. See Figure 23. With a 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.

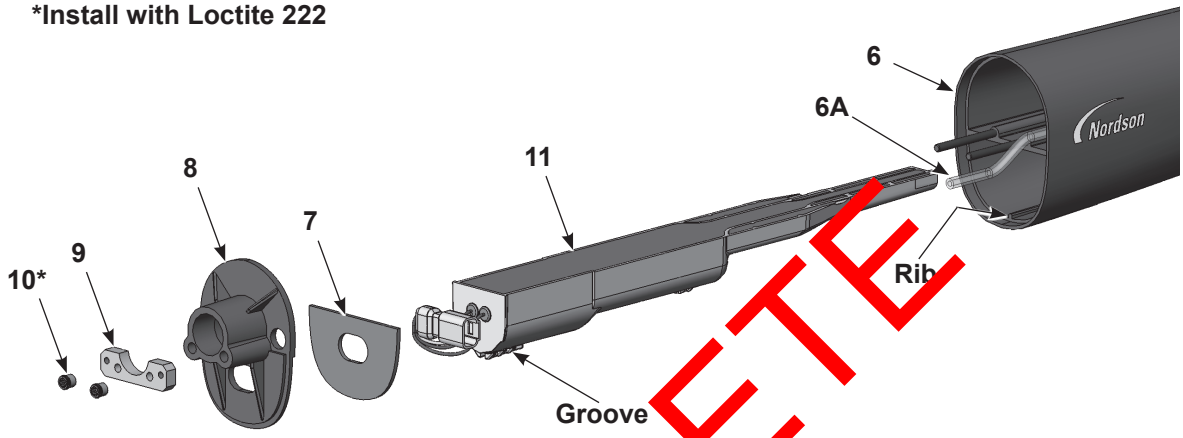


Figure 23 Bar-Mount Gun Disassembly 2 of 3

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

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-lb).

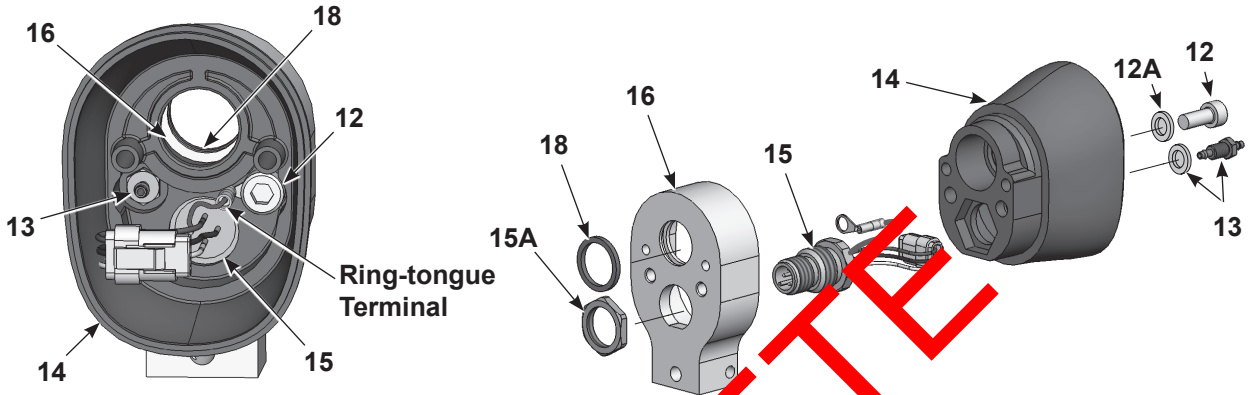


Figure 24 Bar-Mount Gun Disassembly 3 of 3

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

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 24.

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

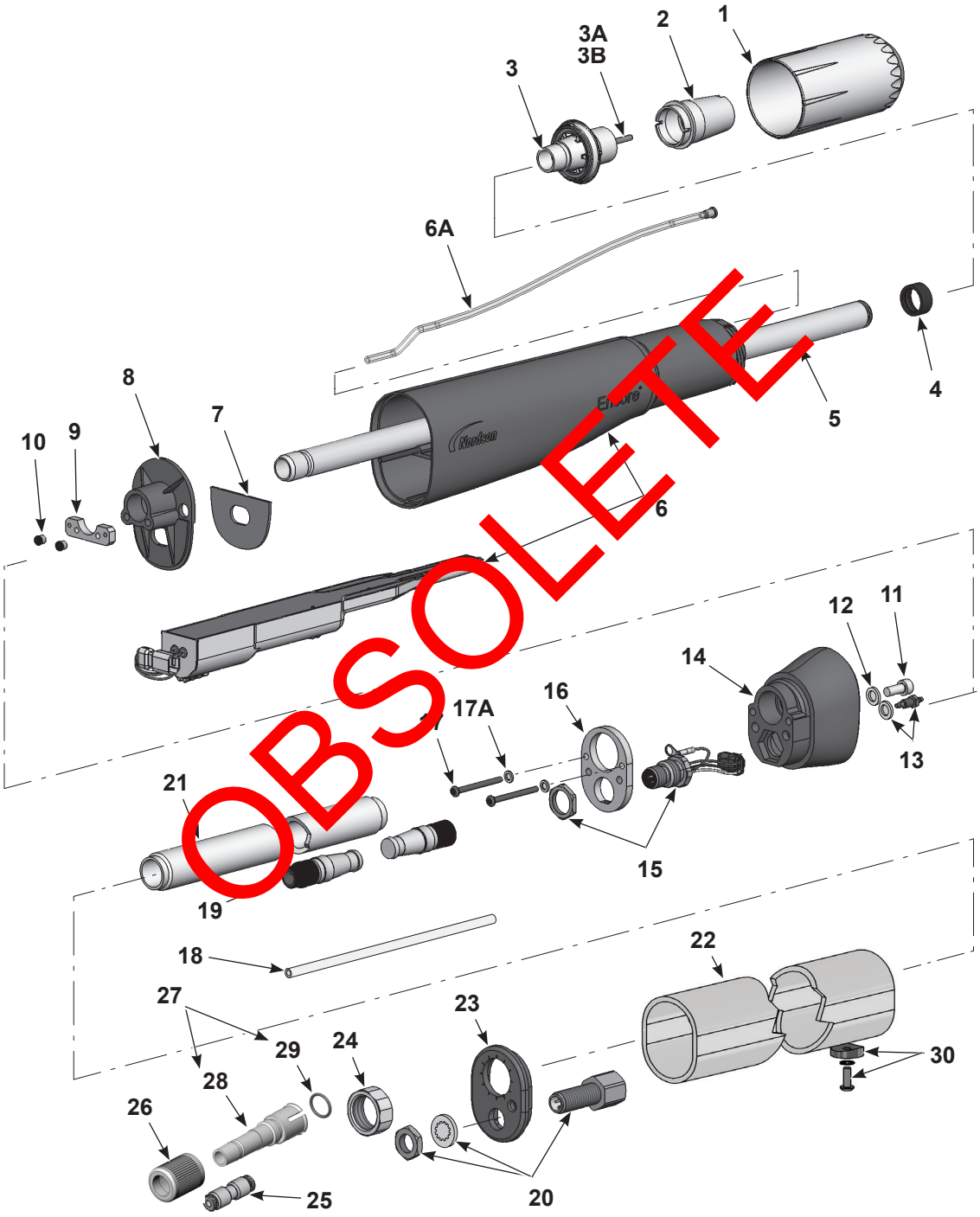


Figure 25 Tube-Mount Gun Parts

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	1036432	• • O–RING, silicone, 13 mm ID x 2 mm W	1	
30	1609314	• PLUG, tube mount, kit, auto, Encore	1	

Continued...

OBSOLETE

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

NOTE: A. Refer to the *Options* section for a complete list of available flat spray nozzles, conical nozzles and deflectors.

B. Bulk item, order in increments of one foot.

C. For use with 11 mm and 1/2 in hose.

D. For flat spray nozzle use only. Refer to the *Options* section for assemblies/parts for use with conical nozzles and deflectors.

E. The type of material used for the tube mount determines the type of spray gun.

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

AR: As Required

NS: Not Shown

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Bar-Mount Gun Parts

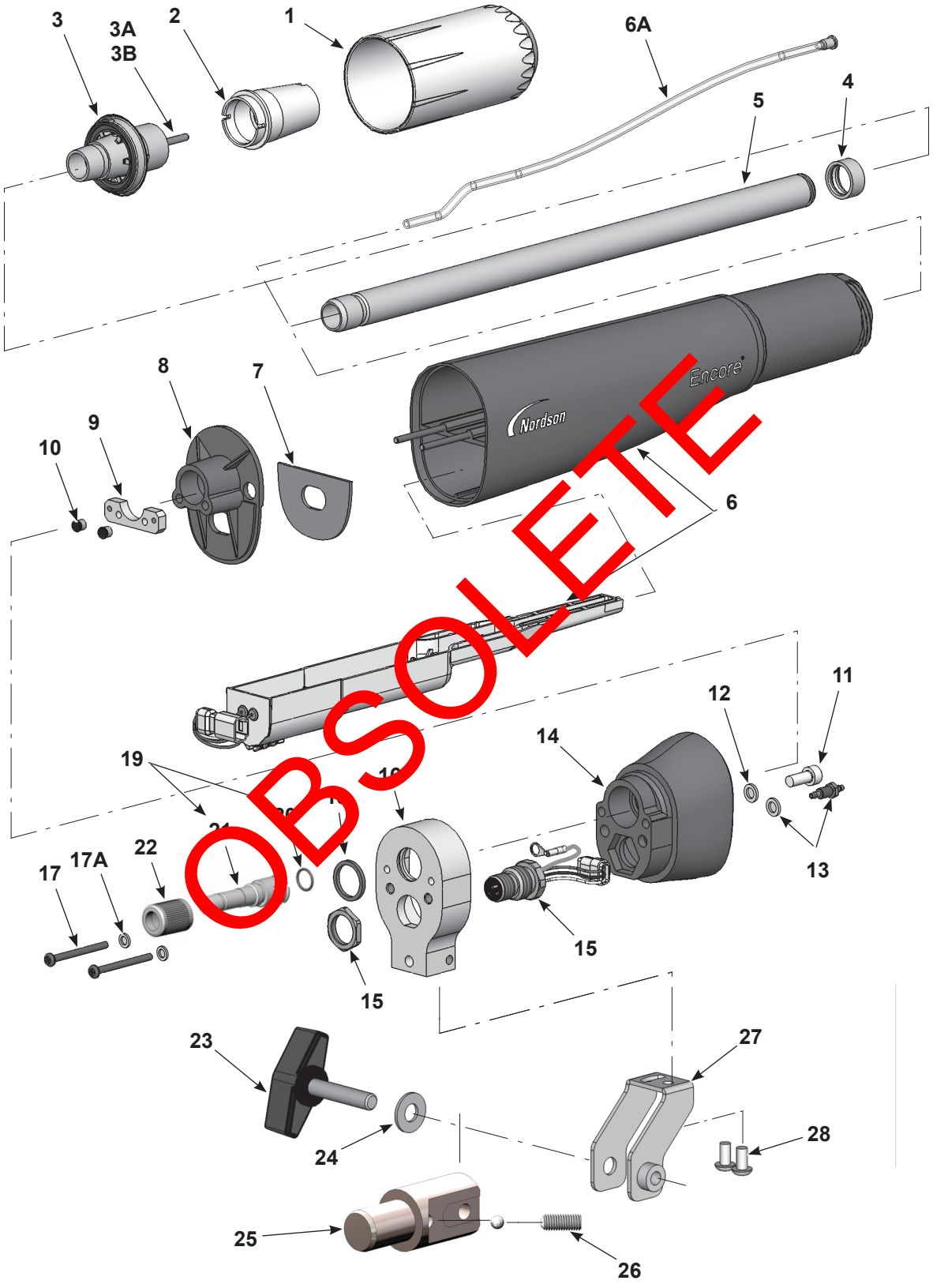


Figure 26 Bar-Mount Gun Parts

Bar-Mount Gun Parts List

See Figure 26.

NOTE: Cables for the bar-mount gun are optional. Refer to *Cables,* on page 41 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, [illegible] tubing	1	
14	1097518	• BODY, gun, rear, auto, Encore	1	
15	1097514	• RECEPTACLE, gun harness	1	
16	1097512	• ADAPTER, mount, ba[illegible]	1	
17	1605696	• SCREW, socket head, M5 x 35 mm	1	
17A	983520	• WASHER, lock, internal, M6, 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	1036432	• • O-RING, silicone, 13 mm ID x 2 mm W	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	1097542	• BRACKET, mount, bar	1	
28	982503	• SCREW, button, socket, M5 x 10	2	

Continued...

OBSOLETE

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

NOTE:
A. Refer to the Options section for a complete list of available flat spray nozzles, conical nozzles and deflectors.
B. For use with 11 mm and 1/2 in hose.
C. For flat spray nozzle use only. Refer to the *Options* section for assemblies and parts for use with conical nozzles and deflectors.
D. Application Specific: Order part number 1609053 if a positive power supply is needed. The positive power supply is sold separately from the gun body.

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.

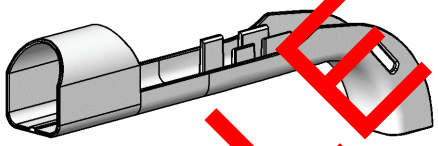


Figure 27 Optional Hose Hanger

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.

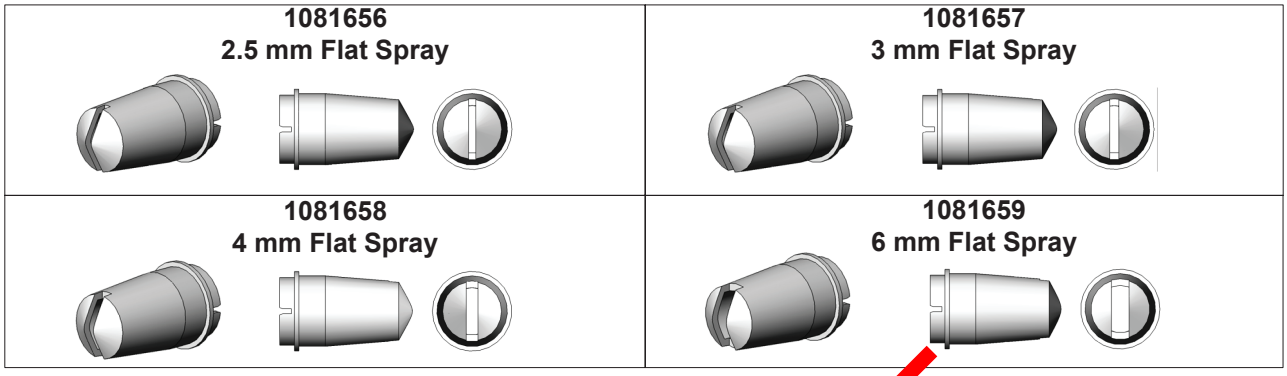


Figure 28 Flat Spray Nozzles

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	

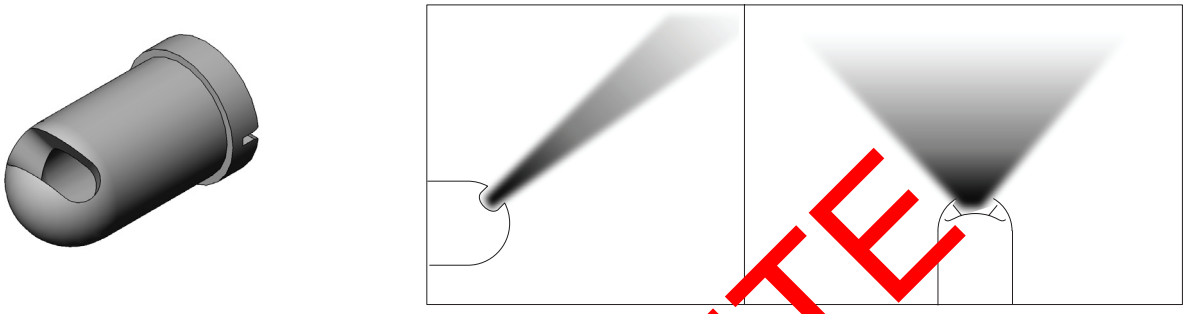


Figure 30 45-Degree Corner Spray Nozzle

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	

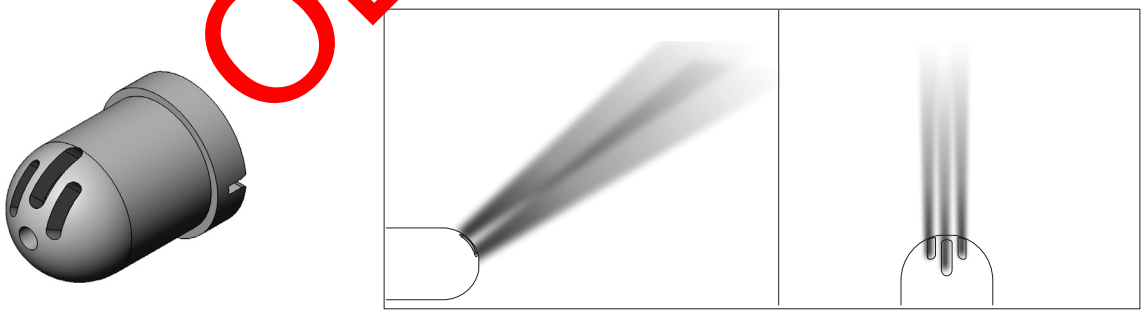


Figure 31 45-Degree Flat Spray Nozzle

Conical Nozzle, Deflectors and Electrode Assembly Parts

See Figure 32 and Figure 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

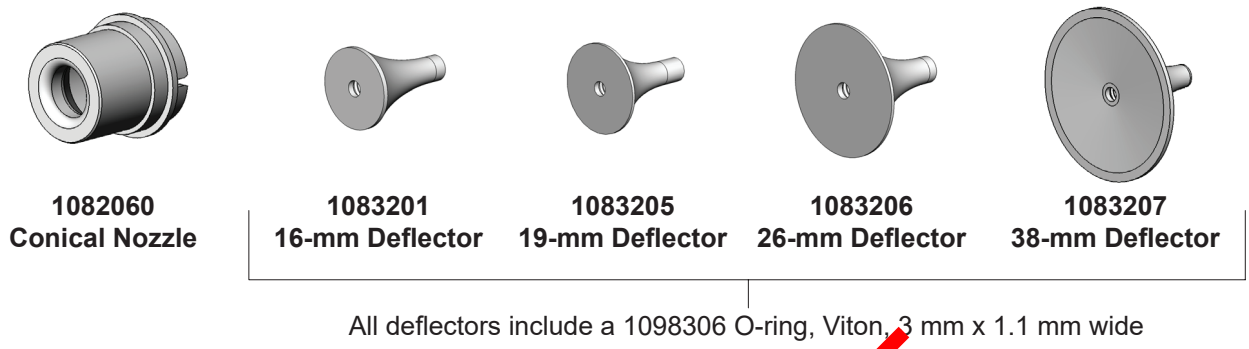


Figure 32 Conical Nozzle and Deflectors

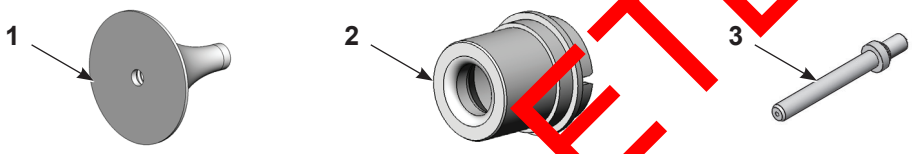


Figure 33 Conical Nozzle Kit

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

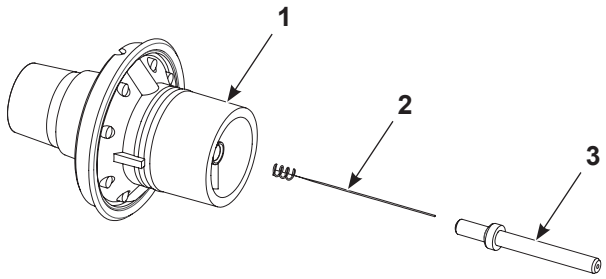
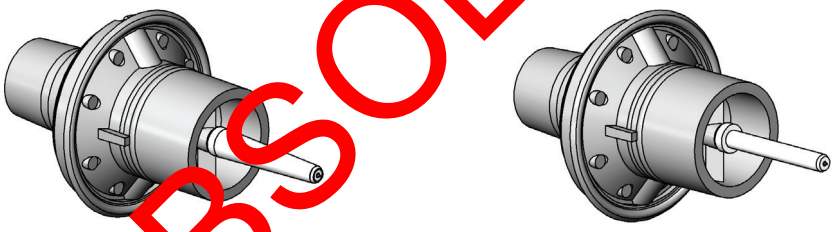


Figure 34 Conical Electrode Assembly

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.



1613838
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.

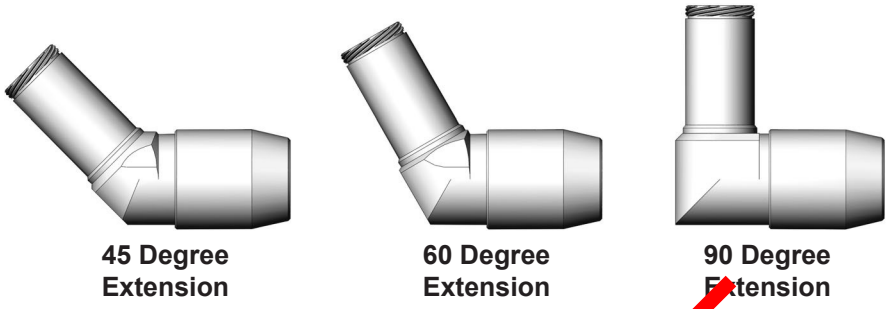


Figure 36 Angled Spray Extensions

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.

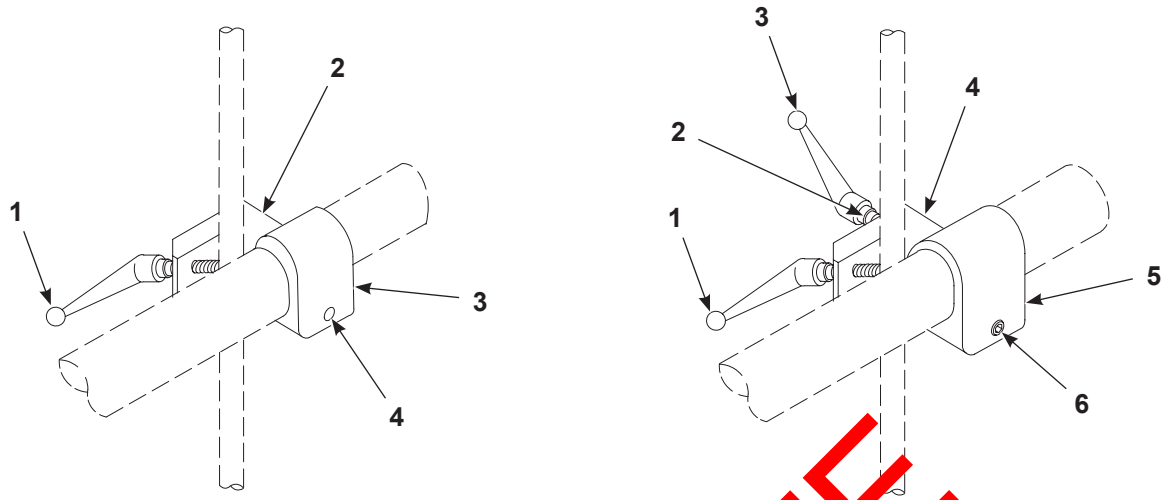


Figure 37 Gun Bar Mounts for Tube-Mount Guns

Standard Mount Assembly

Item	Part	Description	Quantity	Note
—	1010717	MOUNT, assembly, Sure Coat automatic gun	1	
1	248957	• HANDLE, adjustment, 3/8−16 x 1.77 in.	1	
2	- - - - - -	• MOUNT, clamp, automatic gun	1	
3	- - - - - -	• MOUNT, sleeve, automatic gun	1	
4	981561	• SCREW, socket, 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, 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, 3/8−16 x 2.75 in.	1	
4	- - - - - -	• MOUNT, clamp, automatic gun	1	
5	- - - - - -	• MOUNT, sleeve, automatic gun	1	
6	981561	• SCREW, socket, 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.

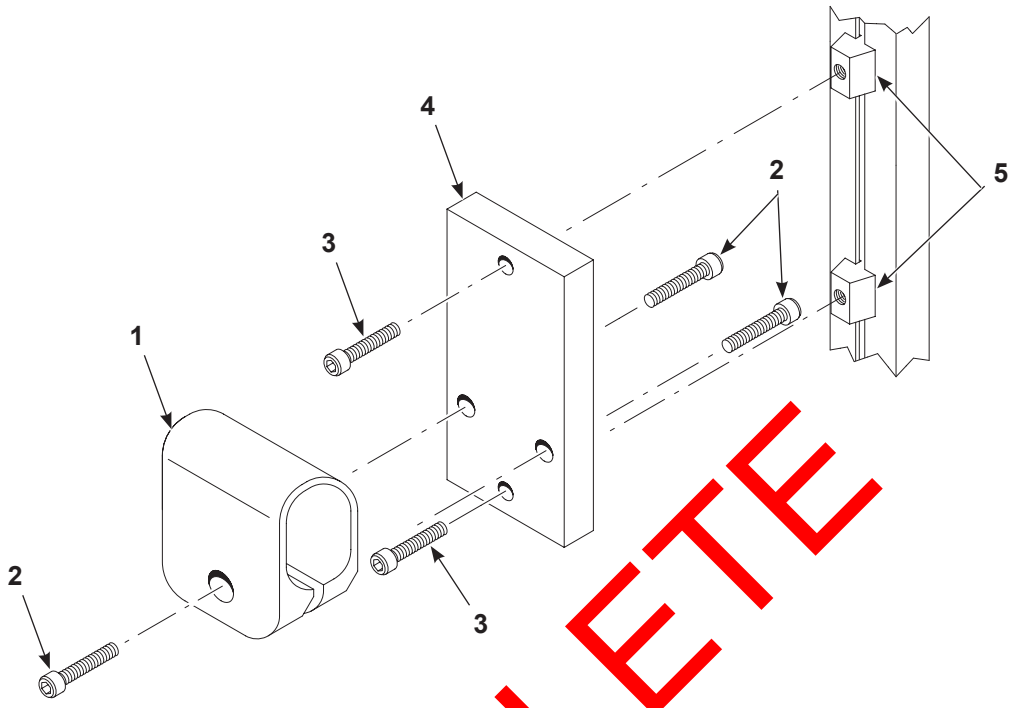


Figure 38 Extrusion Gun Mount Assembly for Tube-Mount Guns

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, 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.

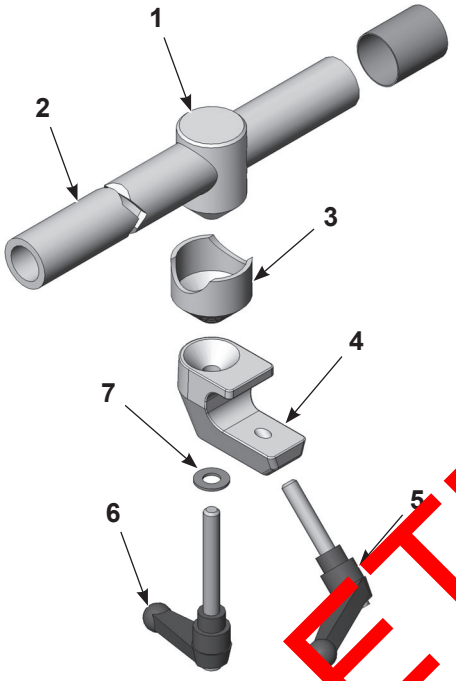


Figure 39 Gun Bar for Bar-Mount Guns

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, adjusting	1	
5	248957	• HANDLE, adjust, 3/8–16 x 1.77 in.	1	
6	249074	• HANDLE, adjust, 3/8–16 x 2.75 in.	1	
7	983061	• WASHER, flat, 0.406 x 0.812 x 0.065 in., zinc	1	

OBSOLETE

Ion Collector Kit

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

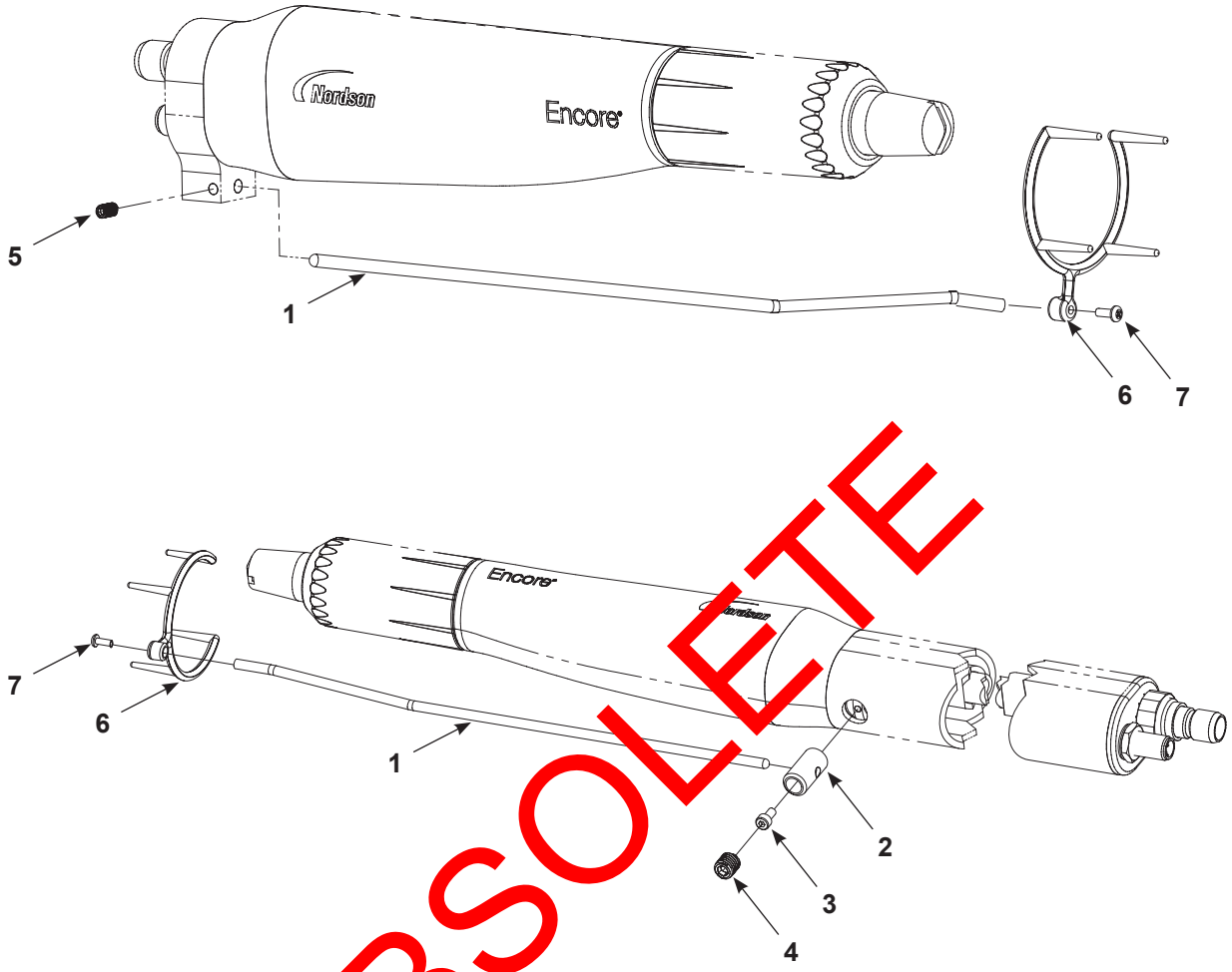


Figure 40 Ion Collector Kit

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 (2018)	EN61000-6-3 (2007)	EN 7[illegible]0 (2018)
EN60079-0 (2013)	EN50050-2 (2013)	EN61000-6-2 (2005)	
EN60079-31 (2014)	EN50177 (2009)	EN55011 (2009)	

Type of Protection:
- Ambient Temperature: +15ºC to +40ºC
- Ex II 2 D / 2mJ = Auto Applicators
- Ex II (2) D = Main Console and Auxiliary Console Co[illegible]ollers
- Ex II (2) 3 D = Optional Pedestal

ATEX Product Certificates:
- FM11ATEX0056X (Applicators) (Dublin, Ireland)
- FM13ATEX0010X (Controllers) (Dubli[illegible], Ireland)

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

OBSOLETE

Date: 08Feb2022

Jeremy Krone
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Nordson Authorized Representative in the EU
Person authorized to compile the relevant technical documentation.
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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)	FM 7260 (2018)
EN60079-0 (2014)	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 = (Applicator) (Dublin, Ireland)
- FM11ATEX0057X = (Controller) (Dublin, Ireland)

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

OBSOLETE

Date: 08Feb2022

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EU DECLARATION of Conformity

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

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.
Encore Select HD Robot Applicator with Encore HD controls for robot systems.

Description: These are electrostatic, powder spray systems, including applicator, control cables and associated controllers. The Encore XT Manual system uses venturi style pump technology for supplying powder to the spray gun. While the Encore HD Manual system uses high density pump technology for supplying powder to the spray gun.

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

Standards Used for Compliance:

EN/ISO12100 (2010)	ISEN60079-0 (2014)	EN61000-6-3 (2007)	EM 7260 (2018)	EN50050-2 (2013)
EN1953 (2013)	EN60079-31 (2014)	EN61000-6-2 (2005)	EN55011 (2016)	EN60204-1 (2018)

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

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

Certificates:
- FM14ATEX0051X = Encore XT/HD Manual Appl. And Encore Select HD Robot Appl. (Dublin, Ireland)
- FM14ATEX0052X = Controls (Dublin, Ireland)
- FM11ATEX0056X = Encore Automatic Applicator (Dublin, Ireland)

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

OBSOLETE

Date: 20NOV20

_____
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EU DECLARATION of Conformity

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

Product: Encore Enhance Powder Spray Systems

Models: Encore Enhance Dual Manual Unit, Encore Enhance Dual Auto Unit, Encore Enhance Manual Interface, Encore Enhance Stack.

Description: This is an electrostatic, powder spray system, including Manual and Auto applicators, control cables and associated controllers. The Manual & Automatic Controllers are available in different configurations mounted on a power distribution enclosure.

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 (2018) EN50050-2 (2013)
EN60079-31 (2014) EN61000-6-2 (2005) EN55011 (2016)

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

Type of Protection:
- Ambient Temperature: +15ºC to +40ºC
- Ex tb IIIB T60ºC / Ex II 2 D / 2mJ = (Encore XT and HD Manual Applicators)
- Ex tc IIIB T60ºC Dc / Ex II (2) 3 D = (Enhance Manual Interface Controller)
- Ex II (2) D = (Enhance Stack Controller) – Located in Unclassified Location (Zone)
- Ex II 2 D / 2mJ = (Encore Auto Applicator)

Certificates:
- FM14ATEX0051X = Encore XT and HD Manual Applicators (Dublin, Ireland)
- FM18ATEX0058X = Controls (Dublin, Ireland)
- FM11ATEX0056X = Encore Automatic Applicators (Dublin, Ireland)

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

Date: **06Jan22**

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EU DECLARATION of Conformity

Product: Encore Engage Powder Spray Systems

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

Models: Encore Main Controller with Display, Encore Main Controller with Remote Display, Encore Engage Auxiliary Units

Description: This is an electrostatic, powder spray system, including Manual and Auto applicators, control cables and associated controllers.

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

Standards Used for Compliance:
EN/ISO12100 (2010) EN61000-6-3 (2007) FM 7260 (2018) EN50050-2 (2013)
EN61000-6-2 (2005) EN55011 (2009) EN50177 (2012)

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

Type of Protection:
- Ambient Temperature: +15ºC to +40ºC
- Ex tb IIIB T60ºC / Ex II 2 D / 2mJ = (Encore XT and HD Manual Applicators)
- Ex tc IIIB T60ºC Dc / Ex II (2) 3 D = (Enhance Manual Interface Controller)
- Ex II (2) D = (Engage Controllers and Remote Display) - Located in Unclassified Location (Zone)
- Ex II 2 D / 2mJ = (Encore Auto Applicator)

Certificates:
- FM14ATEX0051X = Encore XT and HD Manual Applicators (Dublin, Ireland)
- FM18ATEX0058X = Encore Enhance Manual Interface (Dublin, Ireland)
- FM11ATEX0056X = Encore Automatic Applicator (Dublin, Ireland)
- FM19ATEX0005X = Encore Engage Controller (Dublin, Ireland)

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

OBSOLETE

Date: 09Feb22

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UK DECLARATION of Conformity

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

Product: Encore Enhance Powder Spray Systems

Models: Encore Enhance Dual Manual Unit, Encore Enhance Dual Auto Unit, Encore Enhance Manual Interface, Encore Enhance Stack. Applicators for use with these controls are Encore Auto, Encore HD Auto, Encore Select HD Auto Robot and Encore XT/HD Manual.

Description: This is an electrostatic, powder spray system, including Manual and Auto applicators, control cables and associated controllers. The Manual & Automatic Controllers are available in different configurations mounted on a power distribution enclosure.

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)	EN60079-0 (2014)	EN61000-6-3 (2007)	FM 7260 (2018)	EN50050-2 (2013)
	EN60079-31 (2014)	EN61000-6-2 (2005)	EN55011 (2016)	

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

Type of Protection:
- Ambient Temperature: +15ºC to +40ºC
- Ex tb IIIB T60ºC / Ex II 2 D / 2mJ = (Encore XT and HD Manual Applicators)
- Ex tc IIIB T60ºC Dc / Ex II (2) 3 D = (Enhance Manual Interface Controller)
- Ex II (2) D = (Enhance Stack Controller) – Located in Unclassified Location (Zone)
- Ex II 2 D / 2mJ = (Encore Auto Applicator, Encore HD Auto Applicator and Encore Select HD Robot Appl)

Certificates:
- FM21UKEX0129X = Encore XT and HD Manual Applicators (Maidenhead, Berkshire, UK)
- FM21UKEX0241X = Controls (Maidenhead, Berkshire, UK)
- FM22UKEX0006X = Encore Automatic Applicator (Maidenhead, Berkshire, UK)
- FM21UKEX0223X = Encore HD Automatic Applicator (Maidenhead, Berkshire, UK)

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

OBSOLETE

Date: **06Jan22**

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England

UK DECLARATION of Conformity

Product: Encore Engage Powder Spray Systems

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

Models: Encore Main Controller with Display, Encore Main Controller with Remote Display, Encore Engage Auxiliary Units

Description: This is an electrostatic, powder spray system, including Manual and Auto applicators, control cables and associated controllers.

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)	EN61000-6-3 (2007)	FM 7260 (2018)	EN500[illegible]-2 (2013)
	EN61000-6-2 (2005)	EN55011 (2009)	EN50[illegible]77 (2012)

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

Type of Protection:
- Ambient Temperature: +15ºC to +40ºC
- Ex tb IIIB T60ºC / Ex II 2 D / 2mJ = (Encore XT and HD Manual Applicators)
- Ex tc IIIB T60ºC Dc / Ex II (2) 3 D = (Enhance Manual Interface Controller)
- Ex II (2) D = (Engage Controllers and Remote Display) – Located in Unclassified Location (Zone)
- Ex II 2 D / 2mJ = (Encore Auto Applicator)

Certificates:
- FM21UKEX0129X = Encore XT and HD Manual Applicators (Maidenhead, Berkshire, UK)
- FM21UKEX0241X = Encore Enhance Manual Interface (Maidenhead, Berkshire, UK)
- FM22UKEX0006X = Encore Automatic Applicator (Maidenhead, Berkshire, UK)
- FM21UKEX0240X = Encore Engage Controller (Maidenhead, Berkshire, UK)

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

Date: 09Feb22

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England

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)	ISEN60079-0 (2013)	EN61000-6-3 (2007)	FM 7260 (2018)	EN50050-2 (2013)
EN50177 (2009)	EN60079-31 (2014)	EN61000-6-2 (2005)	EN5[illegible]11 (2009)	EN60204-1 (2018)

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: 08Feb2022

Jeremy Krone
Engineering Manager
Industrial Coating Systems
Amherst, Ohio, USA

Nordson Authorized Representative in the UK
Contact: Technical Support Engineer
Nordson UK Ltd; Unit 10 Longstone Road
Heald Green; Manchester, M22 5LB
England

UK DECLARATION of Conformity

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

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.
Encore Select HD Robot Applicator with Encore HD controls for robot systems.

Description: These are electrostatic, powder spray systems, including applicator, control cables and associated controllers. The Encore XT Manual system uses venturi style pump technology for supplying powder to the spray gun. While the Encore HD Manual system uses high density pump technology for supplying powder to the spray gun.

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

Standards Used for Compliance:

EN/ISO12100 (2010)	ISEN60079-0 (2014)	EN61000-6-3 (2007)	FM 7260 (2018)	EN50050-2 (2013)
EN1953 (2013)	EN60079-31 (2014)	EN61000-6-2 (2005)	EN55011 (2009)	EN60204-1 (2018)

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

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

Certificates:
- FM21UKEX0129X = Encore XT/HD Manual App & Select HD Robot Appl. (Maidenhead, Berkshire, UK)
- FM21UKEX0130X = Controls (Maidenhead, Berkshire, UK)
- FM22UKEX0006X = Encore Automatic Applicator (Maidenhead, Berkshire, UK)

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

Date: 22Sept21

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

Nordson Authorized Representative in the UK
Contact: Technical Support Engineer
Nordson UK Ltd.; Unit 10 Longstone Road
Heald Green; Manchester, M22 5LB.
England

UK 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 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)	EN60204-1 (2018)	EN61000-6-3 (2007)	EM 7250 (2018)
EN60079-0 (2013)	EN50050-2 (2013)	EN61000-6-2 (2005)	
EN60079-31 (2014)	EN50177 (2009)	EN55011 (2009)	

Type of Protection:
- Ambient Temperature: +15ºC to +40ºC
- 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:
- FM22UKEX0006X = (Applicators) (Maidenhead, Berkshire, UK)
- FM21UKEX0224X (Controllers) (Maidenhead, Berkshire, UK)

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

OBSOLETE

Date: 08Feb2022

Jeremy Krone
Engineering Manager
Industrial Coating Systems
Amherst, Ohio, USA

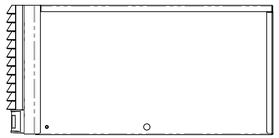
Nordson Authorized Representative in the UK

Contact: Technical Support Engineer
Nordson UK Ltd; Unit 10 Longstone Road
Heald Green; Manchester, M22 5LB
England

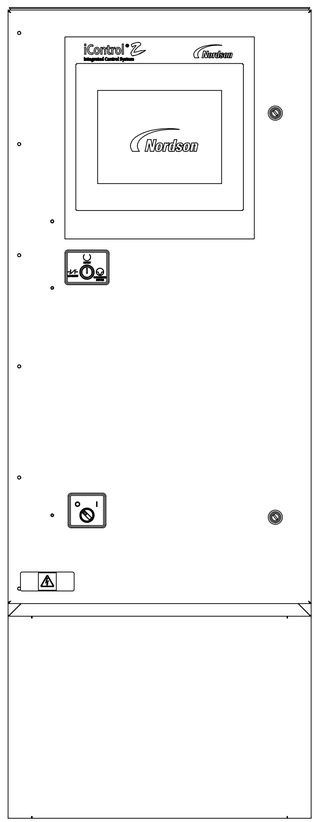
MATERIAL NO. 10011935 REVISION 05

ZONE	REV	DESCRIPTION	BY	CHK	RELEASE NO.	DATE
	01	RELEASED FOR PRODUCTION	DAK		PE603028	21DEC12
	02	02) ADDED OPTIONS TO TABLE: REMOVED P/N 1600809	BDM		PE603158	24OCT13
		AND ADDED P/N 1601344 FROM TABLE.				
	03	03)SHEET 2 ADDED	DAK	BZ	PE603484	04DEC13
	04	04) ADDED 1606986 TO TABLE	MB	BF	PE604134	14FEB15
	05	ADDED 1609048 TO TABLE	DB	BF	PE605117	10JAN17

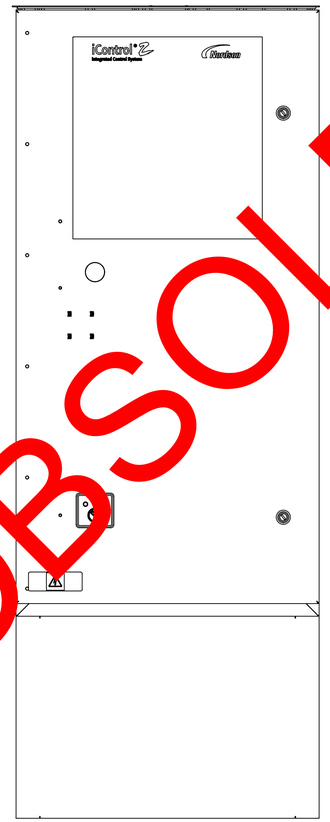
AIR CONDITIONING UNIT



MAIN CONSOLE



AUXILIARY CONSOLE



OBSOLETE

ENCORE iCONTROL 2

THE FOLLOWING CONTROLLERS ARE SUITABLE FOR UNCLASSIFIED LOCATIONS

1603116 CONT.,ENCORE,iCONTROL2,4G,MAIN CONSL
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
1603585 CONT.,ENCORE,iCONTROL2,8G,AUX CONSL
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:

02 1097489 GUN, BAR MT, AUTO,ENCORE
1097500 GUN, TUBE MT, AUTO,ENCORE 6 FT
1099824 GUN, TUBE MT, AUTO,ENCORE 5 FT
04 1606986 GUN,TUBE MT,AUTO,ENCORE,5FT PVC

OPTIONS:

05 1604084 EXTENSION,SPRAY,90 DEG,ENCORE
05 1609048 POWER SUPPLY, 100KV,POSITIVE,ENCORE

02 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 MM EXCEPT AS NOTED
X±0.8 | X.X±0.25 | X.XX±0.13
MACHINED SURFACES 1.6
BREAK INSIDE/OUTSIDE CORNERS 0.1/0.8
THREAD LENGTH DIMENSIONS ARE FULL THREAD
INTERPRET DRAWINGS PER ASME Y14.5-2009
PERFECT FORM AT MMC REQUIRED FOR INTERRELATED FEATURES
THIRD ANGLE PROJECTION

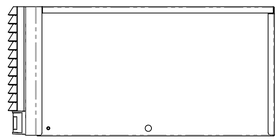
NORDSON CORPORATION
WESTLAKE, OH, U.S.A. 44145

DESCRIPTION: REF DWG,APPROVED EQUIPMENT,ICONTROL2
DRAWN BY: DAK | DATE: 14SEP12 | RELEASE NO.: PE603028
CHECKED BY | APPROVED BY
SIZE: D | FILE NAME: 10012067 | MATERIAL NO.: 10012067 | REVISION: 05
SCALE: NONE | CADD GENERATED DWG. | SHEET 1 OF 2

MATERIAL NO.	REVISION
	05

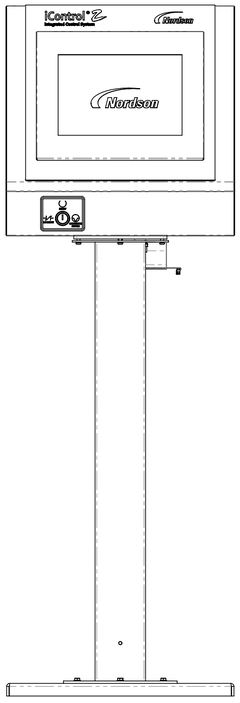
ZONE	REV	DESCRIPTION	BY	CHK	RELEASE NO.	DATE
		SEE SHEET 1 FOR REVISION HISTORY.				

AIR CONDITIONING UNIT



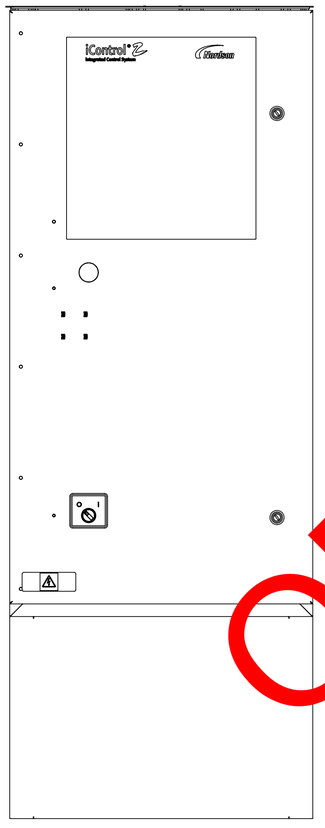
1603093 KIT, AIR CONDITIONING UNIT

PEDESTAL



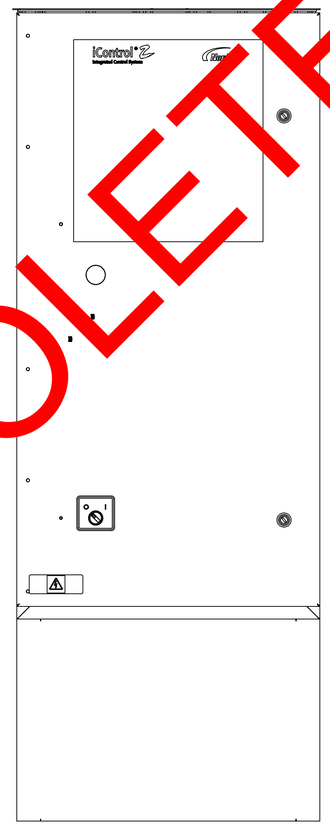
1602910 PEDESTAL ASSEMBLY,ENCORE,iCONTROL2

MAIN CONSOLE W/ PEDESTAL



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

AUXILIARY CONSOLE



1603583 CONT.,ENCORE,iCONTROL2,4G,AUX CONSL
1603584 CONT.,ENCORE,iCONTROL2,6G,AUX CONSL
1603585 CONT.,ENCORE,iCONTROL2,8G,AUX CONSL
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

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
1603585 CONT.,ENCORE,iCONTROL2,8G,AUX CONSL
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

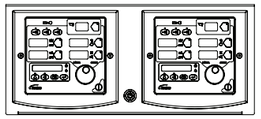
ALL DIMENSIONS IN INCHES EXCEPT AS NOTED
X.XX±.03 X.XXX±.010
MACHINED SURFACES 125
BREAK INSIDE/OUTSIDE CORNERS .005/.030
THREAD LENGTH DIMENSIONS ARE FULL THREAD
INTERPRET DRAWINGS PER ASME Y14.5-2009
PERFECT FORM AT MMC REQUIRED FOR INTERRELATED FEATURES
THIRD ANGLE PROJECTION

NORDSON CORPORATION
WESTLAKE, OH, U.S.A. 44145

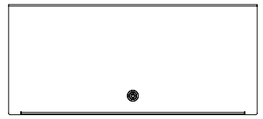
DESCRIPTION: REF DWG,APPROVED EQUIPMENT,ICONTROL2
DRAWN BY: DAK | DATE: 14SEP12 | RELEASE NO.: PE603028
CHECKED BY: | APPROVED BY:
SIZE: D | FILE NAME: 10012067 | MATERIAL NO.: 10012067 | REVISION: 05
SCALE: 1:6 | CADD GENERATED DWG. | SHEET 2 OF 2

MATERIAL NO. 10017758 REVISION 03

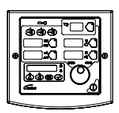
REVISIONS						
ZONE	REV.	DESCRIPTION	BY	CHK	ECO NO.	DATE
	00	ISSUED	JG			17APR18
	01	RELEASED TO PRODUCTION	BDM	RF	PE-100886	09OCT18
	02	ADDED ENCORE HD PUMP MODULES	TAL		PE-102543	23JUL20
	03	ADDED ENCORE ROBOT GUN AND CABLES	BDM	RF	PE-103650	16OCT20



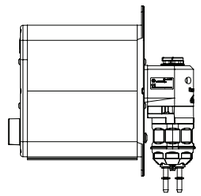
ENCORE ENHANCE
2-GUN AUTO
CONTROLLER ASSY
(1613446)



ENCORE ENHANCE
2-GUN MANUAL
CONTROLLER ASSY
(1613451)



ENCORE ENHANCE
INTERFACE
CONTROLLER UNIT
(1614566)



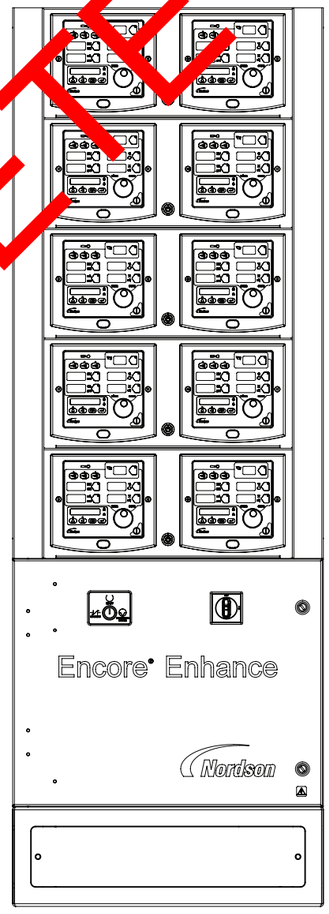
ENCORE ENHANCE HD
PUMP MODULE
(1613916)
(1613943)
(1613944)
(1615910)
02

THE FOLLOWING EQUIPMENT IS FOR USE IN CLASS II, DIV 2 HAZARDOUS (CLASSIFIED) LOCATIONS OR <Ex> II (2)3D EXPLOSIVE ATMOSPHERES:	
1614566	CONTR UNIT,INTERFACE,ENCORE ENHANCE
02 1613916	ENCORE HD PUMP MODULE WITH HD PUMP
02 1613943	ENCORE HD PUMP MODULE WITH HD+ PUMP
02 1613944	ENCORE HD PUMP MODULE WITH XD PUMP
02 1615910	ENCORE HD PUMP MODULE WITH NO PUMP (SERVICE)

THE FOLLOWING CONTROLLERS ARE FOR USE IN UNCLASSIFIED LOCATIONS AND NON-EXPLOSIVE ATMOSPHERES:	
1613446	CONTR ASSY,2 GUN AUTO,ENCORE ENHANCE
1613451	CONTR ASSY,2 GUN MANUAL,ENCORE ENHANCE
1613993	CONTR,TALL,4 AUTO,0 MANL,ENCORE ENHANCE
1613994	CONTR,TALL,6 AUTO,0 MANL,ENCORE ENHANCE
1613995	CONTR,TALL,8 AUTO,0 MANL,ENCORE ENHANCE
1613996	CONTR,TALL,10 AUTO,0 MANL,ENCORE ENHANCE
1614000	CONTR,TALL,4 AUTO,2 MANL,ENCORE ENHANCE
1614002	CONTR,TALL,6 AUTO,2 MANL,ENCORE ENHANCE
1614004	CONTR,TALL,8 AUTO,2 MANL,ENCORE ENHANCE

THE APPLICATORS AND CABLES ARE SUITABLE FOR CLASS II, DIV 1, GROUP F & G HAZARDOUS (CLASSIFIED) LOCATIONS, OR <Ex> II 2 D EXPLOSIVE ATMOSPHERES:	
GUNS:	
1097489	APPLICATOR,BAR MT,AUTO,ENCORE
1099824	APPLICATOR,TUBE MT,AUTO,ENCORE,5FT
1097500	APPLICATOR,TUBE MT,AUTO,ENCORE,6FT
1606986	APPLICATOR,TUBE MT,AUTO,ENCORE,5FT PVC
1606969	APPLICATOR,BAR MT,ENCORE HD AUTO
1606970	APPLICATOR,TUBE MT,AUTO,5FT ENCORE HD
1606985	APPLICATOR,TUBE MT,AUTO,5FT PVC ENCORE HD
1606971	APPLICATOR,TUBE MT,AUTO,6FT ENCORE HD
1600818	APPLICATOR ASSY,MANUAL,ENCORE XT
1603160	APPLICATOR ASSY,MANUAL,ENCORE HD
03 1620076	APPLICATOR ASSY,AUTO,ROBOT,ENCORE SELECT HD
OPTIONS:	
1604084	EXTENSION,SPRAY,90 DEGREE,ENCORE
1605614	EXTENSION,SPRAY,60 DEGREE,ENCORE
1605703	EXTENSION,SPRAY,45 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
1600745	CABLE ASSY,ENCORE XT/HD,6M
1085168	CABLE EXTENSION,6-CONDUCTOR,SHIELDED,6M
03 1605436	CABLE,SPRAY GUN,ROBOT,AUTO,ENCORE,8M
03 1620523	CABLE,SPRAY GUN,ROBOT,AUTO,ENCORE,20M
03 1620466	CABLE EXTENSION,ROBOT,SHIELDED,4-PIN,M12,10M

OBSOLETE



ENCORE ENHANCE
4, 6, 8 OR 10-GUN
CONTROLLER
(10 AUTO, 0 MANUAL SHOWN)

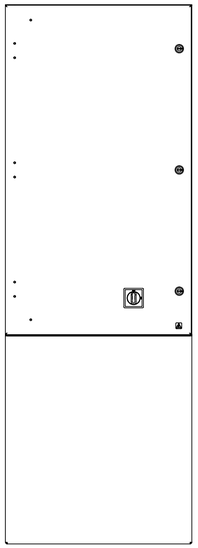
CRITICAL
No revisions permitted without approval of the proper agency.

ALL DIMENSIONS IN MM EXCEPT AS NOTED X±0.8 X.X±0.25 X.XX±0.13 MACHINED SURFACES 1.6 BREAK INSIDE/OUTSIDE CORNERS 0.1/0.8 THREAD LENGTH DIMENSIONS ARE FULL THREAD INTERPRET DRAWINGS PER ASME Y14.5-2009 PERFECT FORM AT MMC REQUIRED FOR INTERRELATED FEATURES THIRD ANGLE PROJECTION	NORDSON CORPORATION WESTLAKE, OH, U.S.A. 44145		
	DESCRIPTION: REF DWG,APPROVED EQUIPMENT,ENHANCE		
	DRAWN BY: JG	DATE: 07JUN18	RELEASE NO.: PE-100886
	CHECKED BY: RF	APPROVED BY: RF	
	SIZE: D	FILE NAME: 10017758	MATERIAL NO.: 10017758 REVISION: 03
	SCALE: 1:6	CADD GENERATED DWG.	SHEET 1 OF 1

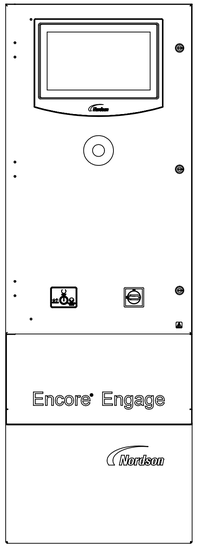
MATERIAL NO. 10018643 REVISION 04

REVISIONS

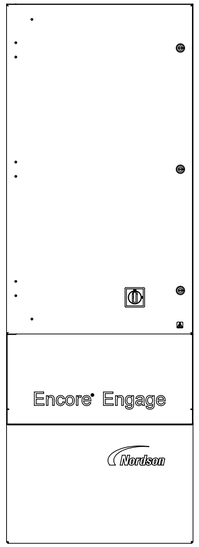
ZONE	REV.	DESCRIPTION	BY	CHK	ECO NO.	DATE
	00	ISSUED	BDM			25JAN19
	01	RELEASED TO PRODUCTION	BDM	RF	PE-101281	22FEB19
	02	ADDED SHEET 2	DRJ		PE-102174	22OCT19
	03	ADDED ENCORE HD PUMP MODULES & ENGAGE AIR CONDITIONED CONFIGURATIONS	TAL	BF	PE-102543	23JUN20
	04	REMOVED OBSOLETE CONTROLLERS & APPLICATORS, UPDATED PICTORIALLY.	FM	DS	PE-105877	27MAR23



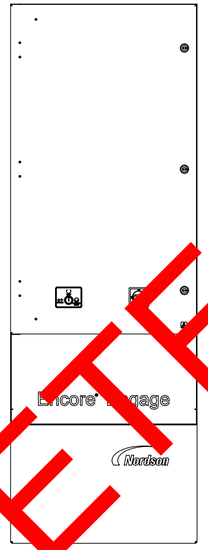
ENCORE ENGAGE EXTERNAL CONTROL CONSOLE



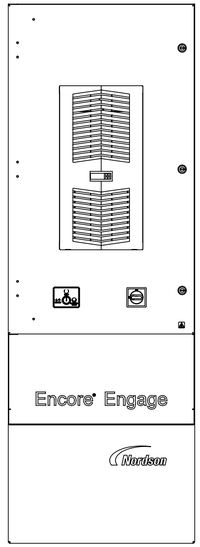
ENCORE ENGAGE LOCAL DISPLAY CONTROL CONSOLE



ENCORE ENGAGE AUXILIARY CONTROL CONSOLE

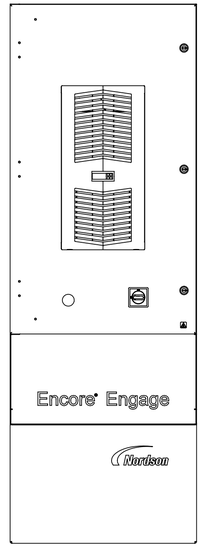


ENCORE ENGAGE REMOTE DISPLAY CONTROL CONSOLE



ENCORE ENGAGE REMOTE DISPLAY CONTROL CONSOLE W/ AIR CONDITIONER

⟨03⟩



ENCORE ENGAGE AUXILIARY CONTROL CONSOLE W/AIR CONDITIONER

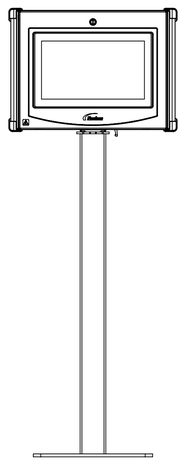
⟨03⟩

⟨04⟩

THE APPLICATORS AND CABLES ARE SUITABLE FOR CLASS II, DIV 1, GROUP F & G HAZARDOUS (CLASSIFIED) LOCATIONS, OR <Ex> II 2 D EXPLOSIVE ATMOSPHERES:	
GUNS:	
1097489	APPLICATOR,BAR MT,AUTO,ENCORE
1099824	APPLICATOR,TUBE MT,AUTO,ENCORE,5FT
1097500	APPLICATOR,TUBE MT,AUTO,ENCORE,6FT
OPTIONS:	
1604084	EXTENSION,SPRAY,90 DEGREE,ENCORE
1605614	EXTENSION,SPRAY,60 DEGREE,ENCORE
1605703	EXTENSION,SPRAY,45 DEGREE,ENCORE
1609048	POS MULTIPLIER
CABLES:	
1097537	CABLE,AUTO,ENCORE,8M
1097539	CABLE,AUTO,ENCORE,12M
1097540	CABLE,AUTO,ENCORE,16M
1600745	CABLE ASSY,ENCORE XT/HD,6M
1601344	CABLE,EXTENSION,ENCORE AUTO,4M
1085168	CABLE EXTENSION,6-CONDUCTOR,SHIELDED,6M

⟨04⟩

THE FOLLOWING CONTROLLERS ARE FOR USE IN UNCLASSIFIED LOCATIONS AND [illegible] EXPLOSIVE ATMOSPHERES:	
1617974	CONTR,MAIN,8 GUN,ENCORE ENGAGE
1617976	CONTR,MAIN,12 GUN,ENCORE ENGAGE
1617978	CONTR,MAIN,16 GUN,ENCORE ENGAGE
1617979	CONTR,AUX,4 GUN,ENCORE ENGAGE
1617981	CONTR,AUX,8 GUN,ENCORE ENGAGE
1617983	CONTR,AUX,12 GUN,ENCORE ENGAGE
1617985	CONTR,AUX,16 GUN,ENCORE ENGAGE
1617988	CONTR,MAIN,REM,8 GUN,ENCORE ENGAGE
1617990	CONTR,MAIN,REM,12 GUN,ENCORE ENGAGE
1617992	CONTR,MAIN,REM,16 GUN,ENCORE ENGAGE
1617995	CONTR,MAIN,REM,AC,8 GUN,ENCORE ENGAGE
1617999	CONTR,MAIN,REM,AC,16 GUN,ENCORE ENGAGE
1618002	CONTR,AUX,AC,8 GUN,ENCORE ENGAGE
1618006	CONTR,AUX,AC,16 GUN,ENCORE ENGAGE
1623643	SYSTEM ASSY,REMOTE DISPLAY,W/PED
1615952	CONTR,EXT,8 GUN,ENCORE ENGAGE
1615954	CONTR,EXT,12 GUN,ENCORE ENGAGE



REMOTE DISPLAY WITH PEDESTAL

⟨04⟩

CRITICAL
No revisions permitted without approval of the proper agency.

ALL DIMENSIONS IN MM EXCEPT AS NOTED
X±0.8 | X.X±0.25 | X.XX±0.13
MACHINED SURFACES 1.6
BREAK INSIDE/OUTSIDE CORNERS 0.1/0.8
THREAD LENGTH DIMENSIONS ARE FULL THREAD
INTERPRET DRAWINGS PER ASME Y14.5-2009
PERFECT FORM AT MMC REQUIRED FOR INTERRELATED FEATURES
THIRD ANGLE PROJECTION

NORDSON CORPORATION
WESTLAKE, OH, U.S.A. 44145

DESCRIPTION: REF DWG,APPROVED EQUIPMENT,ENGAGE

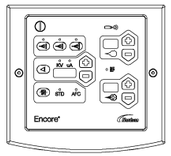
DRAWN BY	DATE	RELEASE NO.
BDM	25JAN19	PE-101281
CHECKED BY	APPROVED BY	
RF	RF	

SIZE	FILE NAME	MATERIAL NO.	REVISION
D	10018643	10018643	04

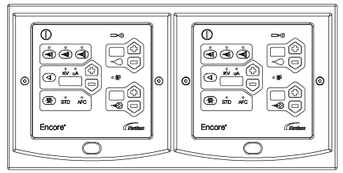
SCALE 1:10 | CADD GENERATED DWG. | SHEET 1 OF 1

MATERIAL NO. 1107700 REVISION 06

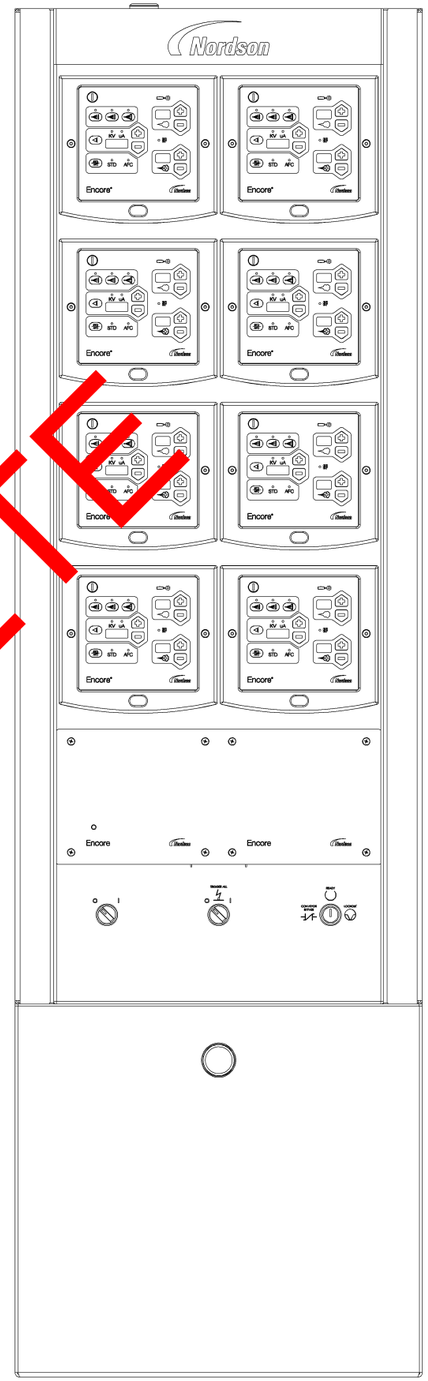
ZONE	REV	DESCRIPTION	BY	CHK	RELEASE NO.	DATE
	00	ISSUED	DRJ		PE602433	11NOV10
	01	RELEASED	TAL		PE602493	04AUG11
	02	ADDED P/N 1600809 TO TABLE AS SHOWN	MHH	BP	PE602719	19JAN12
	03	REMOVED P/N 1600809 FROM TABLE	MHH	DLU	PE603436	15OCT13
	04	ADDED OPTIONS TO TABLE AND ADDED P/N 1601344.	BDM	BDM	PE603158	24OCT13
	05	05) ADDED 1606986 TO TABLE	MB	BF	PE604134	14FEB15
	06	06)REPLACED THE TWO AXIS CONTROLS WITH 2 GUN CONTROLS, REMOVED REF TO AXIS CONTROL, ADDED POS KV MULTIPLIER	RF	RJF	PE605047	11NOV16



ENCORE AUTO CONTROLLER
SINGLE GUN



ENCORE AUTO CONTROLLER
2-GUN



ENCORE AUTO CONTROLLER
4, 6 or 8-GUN

06

OBSOLETE

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
05 1606986	GUN,TUBE MT,AUTO,ENCORE,5FT PVC
OPTIONS:	
04 1604084	EXTENSION,SPRAY,90 DEGREE,ENCORE
06 1609048	POS MULTIPLIER
CABLES:	
1097537	CABLE,AUTO,ENCORE,8M
1097539	CABLE,AUTO,ENCORE,12M
04 03 02 1097540	CABLE,AUTO,ENCORE,16M
1601344	CABLE,EXTENSION,ENCORE AUTO,4M

06

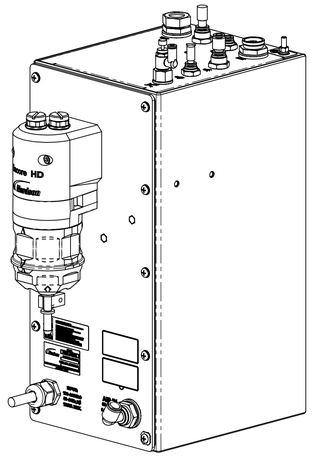
CRITICAL
No revisions permitted without approval of the proper agency.

ALL DIMENSIONS IN MM EXCEPT AS NOTED	NORDSON CORPORATION WESTLAKE, OH, U.S.A. 44145
X±0.8 X.X±0.25 X.XX±0.13	DESCRIPTION: REF DWG,APPROVED EQUIPMENT,ENCORE AUTO
MACHINED SURFACES 1.6	
BREAK INSIDE/OUTSIDE CORNERS 0.1/0.8	DRAWN BY: DRJ — DATE: 11NOV10 — RELEASE NO.: PE602493
THREAD LENGTH DIMENSIONS ARE FULL THREAD	CHECKED BY: — APPROVED BY:
INTERPRET DRAWINGS PER ASME Y14.5-1994	SIZE: D — FILE NAME: PD12165 — MATERIAL NO.: 1107700 — REVISION: 06
PERFECT FORM AT MMC REQUIRED FOR INTERRELATED FEATURES	
THIRD ANGLE PROJECTION	SCALE: 1:4 — SOLIDWORKS GENERATED DWG. — SHEET 1 OF 1

MATERIAL NO. 1084547 REVISION 25

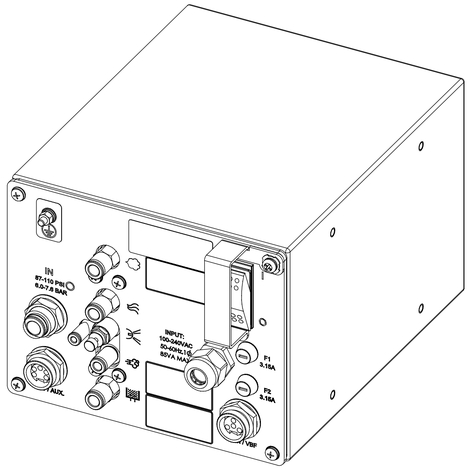
REVISIONS

ZONE	REV.	DESCRIPTION	BY	CHK	ECO 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	DC	DY	PE600552	21FEB08
		MOBILE SYSTEM WITH 25-LB. HOPPER (SHEET 2).				
	A04	04) REDRAWN IN CURRENT FORMAT; ADDED ATEX-	DC	RJF	PE600806	30MAY08
		APPROVED VERSIONS OF INTERFACE CONTROL UNIT,				
		HANDGUN, 115V & 220V VBF SYSTEMS, AND 50- AND				
		25-LB HOPPER SYSTEMS; REDESIGNED APPROVED				
		EQUIPMENT SPECIFICATIONS TABLES (SHEETS 1 & 2);				
		REMOVED MOTORS FROM SPECIFICATION TABLES &				
		ADDED MFR'S CERTIFICATION NO.				
	A05	05) REMOVED FM-APPROVED HANDGUN ASSY 1083120	DC	RJF	PE601120	30JUL08
		FROM APPROVED EQUIPMENT LISTING (SHEETS 1 & 2).				
	A06	06) PART NUMBER ERROR CORRECTION (SHEET 2).	DC	RJF	PE601509	12MAR09
	A07	07) REMOVED 1082819, 1082843, 1082844, 1084512,	DRJ	RJF	PE601681	04AUG09
		1084514, 1084517, 1087272, 1087273, 1087274, &				
		1087275; ADDED 1097072, 1097073, 1097074, & 1097075;				
		UPDATED MPS PICTORIALS.				
	A08	08) UPDATED ENCORE HANDGUN PICTORIALLY. NEW	BB	BDM	PE602105	24JUN10
		ENCORE HANDGUN PART NUMBERS UPDATED IN				
		APPROVED EQUIPMENT TABLES.				
	10	09) UPDATE PG.1 & 2 FOR NEW 230V P/N				
		10) UPDATE VIBRATORY MOTOR VIEW, PG.2	DM	DU	PE602591	05AUG11
	11	1600745 WAS 1102625	DM	BP	PE602297	28NOV11
	12	12) RESVD DESCRPTN, TABLES AND ASSEMBLIES TO	MHH	BDM	PE602609	07FEB12
		REFLECT 'XT' VERSION (SHEETS 1 & 2)				
	13	13) REMOVED ENCORE XT CONROLLER 1087276 &	DC	RJF	PE603075	22OCT13
		ADDED 1604125; UPDATED MOBILE SYSTEM VIEWS.				
	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#1606271 TO 1606977	NHY	TF	PE604849	24MAY16
	16	16) ADDED POS KV MULTIPLIER (1609048)	RF	RJF	PE605057	01NOV16
	17	SHT 1, CORRECTED TABLE ENTRIES FOR 1606978 AND 1606977; BOTH SHEETS; ADDED TABLE ROWS FOR HD+ PUMP, ADDED NOTES FOR HD+ OPTION;	EW	BF	PE605057	21NOV17
	19	ADDED; 18) OPTIONAL LED LIGHT; 19) BOM P/NS W/ LED	TAL	BDM	PE-100225	22MAY18
	20	20) UPDATES FOR NLIGHTEN ATEX CERTIFICATION	BDM	BDM	PE-100765	22AUG18
	21	SHT 1 - REMOVED VIEWS OF GUNS, CABLES AND OPTIONS, MOVED INFO TO TABLE. ADDED ENCORE HD ROBOT GUN AND CABLES. ADDED 60 AND 45 DEGREE EXTENSIONS.	BDM	RF	PE-103650	16OCT20
	22	SHT 1 - 1611977 WAS CFMUS; SHT 1 & 2 - REVISED TABLE HEADINGS FOR PROPER ATEX RATING TEXT.	BDM	RF	PE-103868	05FEB21
	23	REMOVED ENCORE HD HYBRID & OBS PARTS	DG	FM	PE-104601	13OCT21
	24	UPDATED HOPPER VERSION MOBILE SYSTEM VIEW	CG	RM	PE-105860	21MAR23
	25	ADDED GEN3 APPLICATOR & OPTIONAL KITS	TAL	CG	PE-107163	15MAR24

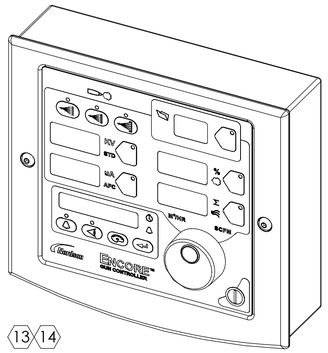


ENCORE HD CONTROLLER
POWER UNIT W/HD OR HD+ PUMP
WITH HD PUMP
1605586 FOR 230V VBF
1605584 FOR 115V VBF
WITH HD+ PUMP
1611089 FOR 230 VBF (17)
1611086 FOR 115 VBF

(14) (15) (23)



ENCORE XT CONTROLLER POWER UNIT
1082815 FOR 230V VBF (10)
(13) **1600468 FOR 115V VBF**



(13) (14)

ENCORE XT/HD INTERFACE CONTROL UNIT
1604125

(22) (15) (12) (A 07) (09)

General Table

THE FOLLOWING EQUIPMENT AND ASSOCIATED CABLES ARE FOR USE IN CLASS II, DIV 2 HAZARDOUS (CLASSIFIED) LOCATIONS OR <Ex> II (2)3D EXPLOSIVE ATMOSPHERES:

PART NUMBER	DESCRIPTION	cFMus	cFMus / ATEX	NOTE
1604125	ENCORE XT/HD INTERFACE CONTROL UNIT		X	XT & HD
1082815	ENCORE XT CONTROLLER POWER UNIT, RELAY BOARD SET UP FOR 230V, 50HZ, VBF OPTION		X	XT
1600468	ENCORE XT CONTROLLER POWER UNIT, RELAY BOARD SET UP FOR 115V, 60HZ, VBF OPTION	X		XT
1605586	ENCORE HD CONTROLLER POWER UNIT, RELAY BOARD SET UP FOR 230V, 50HZ, VBF OPTION		X	HD WITH HD PUMP
1605584	ENCORE HD CONTROLLER POWER UNIT, RELAY BOARD SET UP FOR 115V, 60HZ, VBF OPTION	X		HD WITH HD PUMP
(23) (17) 1611086	ENCORE HD CONTROLLER POWER UNIT, RELAY BOARD SET UP FOR 115V, 60HZ VBF OPTION	X		HD WITH HD+ PUMP
1611089	ENCORE HD CONTROLLER POWER UNIT, RELAY BOARD SET UP FOR 230V, 50HZ OPTION		X	HD WITH HD+ PUMP
1609709	CONTROLLER INTERFACE CABLE 50 FT		X	XT & HD
1080718	CONTROLLER INTERFACE CABLE 10 FT		X	XT & HD
1080719	CONTROLLER INTERFACE CABLE 30 INCH		X	XT & HD

(17)

(A 05) (A 08) (22) (21) (14) (13)

THE FOLLOWING APPLICATORS AND CABLES ARE SUITABLE FOR CLASS II, DIV 1, GROUP F & G HAZARDOUS (CLASSIFIED) LOCATIONS, OR <Ex> II 2 D EXPLOSIVE ATMOSPHERES:

PART NUMBER	DESCRIPTION	cFMus	cFMus / ATEX	NOTE
GUNS				
1600818	ENCORE XT HANDGUN		X	XT
1603160	ENCORE HD HANDGUN		X	HD
1097489	ENCORE AUTOMATIC GUN BAR MOUNT (CAN BE USED IN ROBOT APPLICATIONS)		X	WITH XT CONTROLS
(21) 1620076	ENCORE SELECT HD ROBOT GUN		X	WITH HD CONTROLS
(25) 1624523	APPLICATOR,AUTO,ENCORE,GEN3 (CAN BE USED IN ROBOT APPLICATIONS)		X	APPLICATOR,GEN3
CABLES				
1600745	ENCORE XT/HD 6 METER HANDGUN CABLE		X	XT & HD
1085168	6 METER HANDGUN CABLE EXTENSION		X	XT & HD
1605436	CABLE,SPRAY GUN,ROBOT,AUTO,ENCORE,8M		X	WITH XT & HD CONTROLLS
(21) 1620523	CABLE,SPRAY GUN,ROBOT,AUTO,ENCORE,20M		X	WITH XT & HD CONTROLLS
1601344	CABLE,EXTENSION,ENCORE,AUTO AND ROBOT,4M		X	WITH XT & HD CONTROLLS
1620466	CABLE,EXTENSION,ROBOT,ENCORE,10M		X	WITH XT & HD CONTROLLS
OPTIONS				
1604084	EXTENSION,SPRAY,90 DEGREE,ENCORE		X	AUTO GUNS
1605614	EXTENSION,SPRAY,60 DEGREE,ENCORE		X	AUTO GUNS
(21) 1605703	EXTENSION,SPRAY,45 DEGREE,ENCORE		X	AUTO GUNS
1609048	POSITIVE MULTIPLIER		X	
(22) (18) 1611977	NLIGHTEN LED LIGHT KIT		X	XT & HD
1625279	DIFFUSER,ENCORE HD AUTO,GEN3,PKG			APPLICATOR,GEN3
(25) 1625160	KIT,BAR MOUNT,APPL,AUTO,ENCORE,GEN3 (CAN BE USED IN ROBOT APPLICATIONS)			APPLICATOR,GEN3
1625161	KIT,COLLECTOR,ION,AUTO,ENCORE,GEN3			APPLICATOR,GEN3

CRITICAL
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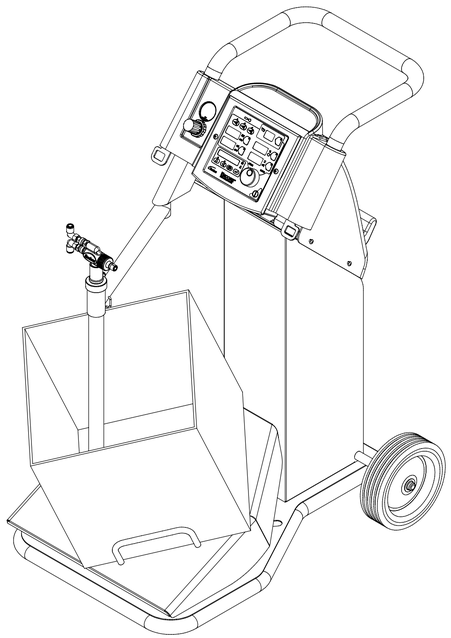
ALL DIMENSIONS IN MM EXCEPT AS NOTED
X±0.8 | X.X±0.25 | X.XX±0.13
MACHINED SURFACES 1.6
BREAK INSIDE/OUTSIDE CORNERS 0.1/0.8
THREAD LENGTH DIMENSIONS ARE FULL THREAD
INTERPRET DRAWINGS PER ASME Y14.5-1994
PERFECT FORM AT MMC REQUIRED FOR INTERRELATED FEATURES
THIRD ANGLE PROJECTION

NORDSON CORPORATION
WESTLAKE, OH, U.S.A. 44145

DESCRIPTION: REF DWG,APVD EQUIP,MANUAL ENCORE XT HD (12) (14)
DRAWN BY: DRJ | DATE: 11JAN08 | RELEASE NO.: PE600468
CHECKED BY: RJF | APPROVED BY: RJF
SIZE: D | FILE NAME: 1084547 | MATERIAL NO.: 1084547 | REVISION: 25
SCALE: NOT TO SCALE | SOLIDWORKS GENERATED DWG. | SHEET 1 OF 2

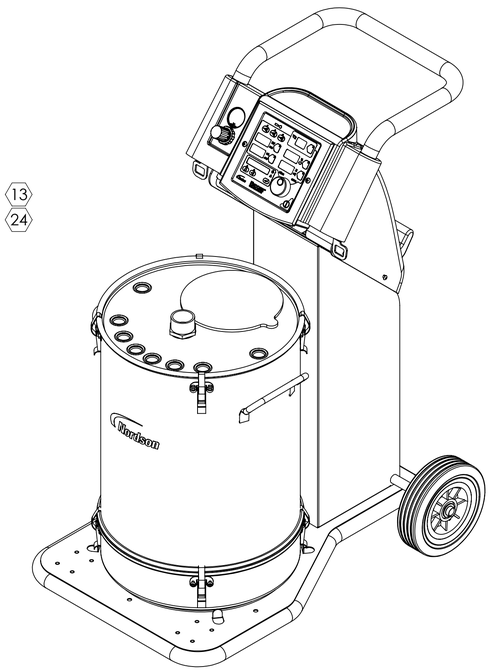
MATERIAL NO. 1084547 REVISION 25

ZONE	REV	DESCRIPTION	BY	CHK	RELEASE NO.	DATE
		(SEE SHEET 1 FOR REVISION HISTORY.)				



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

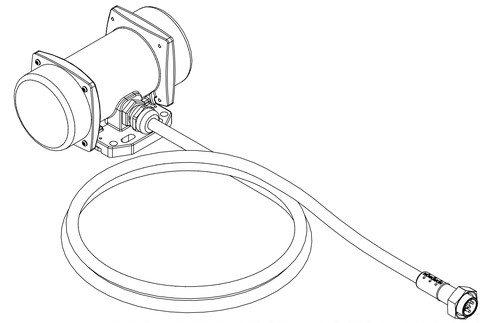
HEIGHT: 1078 [42.5]
WEIGHT: 50.8kg [112lbs]
wheel base: 620 [24.4] L X 511.5 [20.1] W



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

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

ENCORE HD 115V & 230V VBF MOBILE POWDER SYSTEMS 1613900 OR 1613901 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 50LB HOPPER MOBILE POWDER SYSTEMS 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

	PART NUMBER	DESCRIPTION	cFMus	ATEX	cFMus / ATEX
THE FOLLOWING MOBILE SYSTEMS ARE SUITABLE FOR CLASS II, DIV 2 HAZARDOUS (CLASSIFIED) LOCATIONS OR <Ex> II (2)3D EXPLOSIVE ATMOSPHERES. 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) LOCATIONS OR <Ex> II 2 D EXPLOSIVE ATMOSPHERES.	1613882	SYS,MOBILE POWDER,115V VBF,ENCORE XT,LED	X		
	1613884	SYS,MOBILE POWDER,230V VBF,ENCORE XT,LED		X	
	1613900	SYS,MOBILE POWDER,115V VBF,ENCORE HD,LED	X		
	1613901	SYS,MOBILE POWDER,230V VBF,ENCORE HD,LED		X	
	1613885	SYS,MOBILE PWDR,50-LB HOP,ENCORE XT,LED			X
	1613899	SYS,MOBILE PWDR,50 LB HOPR,ENCORE HD,LED			X
	1613910	SYS,MBL PWDR,50 LB HOP,ENCORE HDXD,LED			X

CRITICAL
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ALL DIMENSIONS IN MM EXCEPT AS NOTED	NORDSON CORPORATION WESTLAKE, OH, U.S.A. 44145		
X±0.8 X.X±0.25 X.XX±0.13	DESCRIPTION	REF DWG,APVD EQUIP,MANUAL ENCORE XT HD (12)	
MACHINED SURFACES 16	DRAWN BY	DATE	RELEASE NO.
BREAK INSIDE/OUTSIDE CORNERS 0.1/0.8	DRJ	11JAN08	PE600468
THREAD LENGTH DIMENSIONS ARE FULL THREAD	CHECKED BY	APPROVED BY	
INTERPRET DRAWINGS PER ASME Y14.5-1994	RJF	RJF	
PERFECT FORM AT MMC REQUIRED FOR INTERRELATED FEATURES	SIZE / FILE NAME	MATERIAL NO.	REVISION
THIRD ANGLE PROJECTION	D 1084547	1084547	25
	SCALE NOT TO SCALE	SOLIDWORKS GENERATED DWG.	SHEET 2 OF 2