

# **Ion Collector Kits for Sure Coat<sup>®</sup> Automatic Powder Spray Guns**

## **Description**

This instruction sheet covers the ion collector kits for Nordson Sure Coat automatic powder spray guns. Two kits are available: one for tube-mount spray guns; and one for bar-mount spray guns.

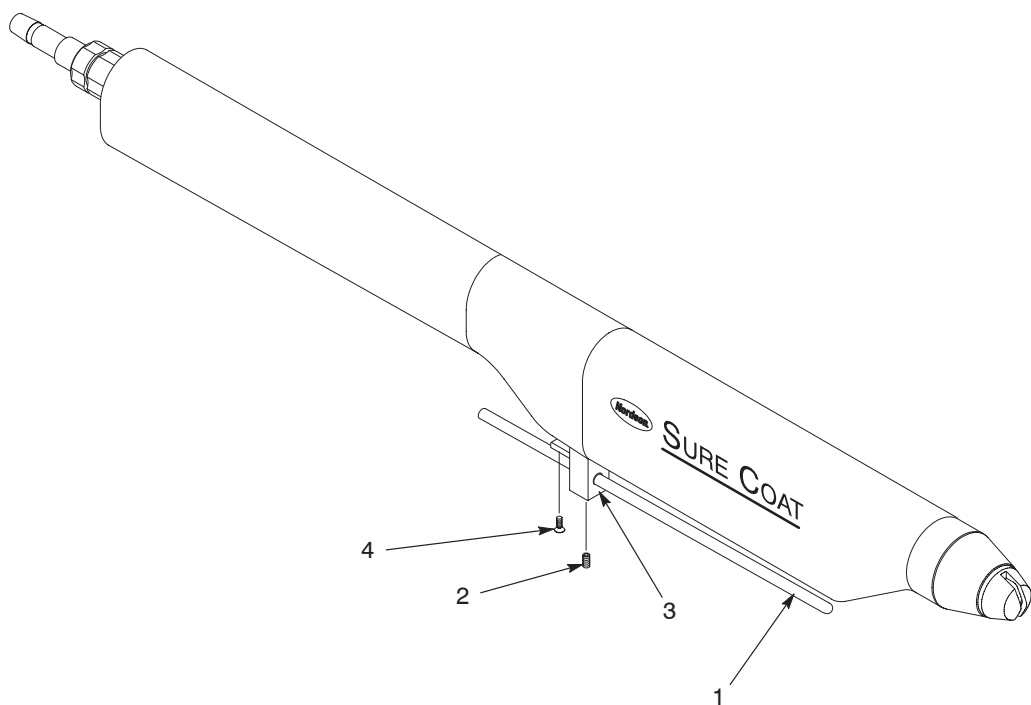
The ion collector can improve the smoothness and appearance of cured powder coatings. It collects ions emitted from the spray gun's charging electrode instead of allowing them to deposit on the part. This can reduce the rate of charge buildup in the powder deposited on the part, which may reduce defects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

See [Figure 1](#). The tube-mount kit consists of a bracket (3), collector rod (1), and screws (2, 4).

See [Figure 2](#). The bar-mount kit consists only of the ion collector rod (1). The rod slides through the existing ball-mount bracket on the spray gun and is secured with the existing set screw.

The distance from the end of the collector rod to the end of the spray gun is adjusted by sliding the rod through the bracket. The collector rod and bracket are electrically grounded through the gun cable and control unit.

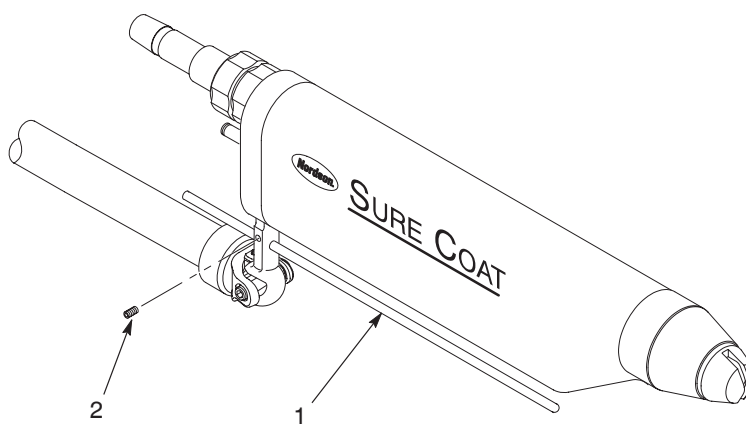
## Description *(contd)*



1400837A

Figure 1 Tube-Mount Gun Ion Collector Kit

- |                      |            |                    |
|----------------------|------------|--------------------|
| 1. Ion collector rod | 3. Bracket | 4. Flat-head screw |
| 2. Set screw         |            |                    |



1400838A

Figure 2 Bar-Mount Gun Ion Collector Kit

- |                      |              |
|----------------------|--------------|
| 1. Ion collector rod | 2. Set screw |
|----------------------|--------------|

# Installation

## Tube-Mount Spray Guns

See [Figure 1](#).

1. Place the bracket (3) into the recess on the bottom of the spray gun's tube mount and secure it with the flat-head screw (4).
2. Slide the collector rod (1) through the bracket.
3. Install the set screw (2) into the bracket. Do not tighten it until you have adjusted the rod length. Refer to *Adjusting Rod Length*.

## Bar-Mount Spray Guns

See [Figure 2](#).

1. Loosen the set screw (2) on the side of the ball-mount bracket.
2. Slide the ion collector rod (1) through the ball-mount bracket.
3. Adjust the rod length. Refer to *Adjusting Rod Length*.

## Adjusting Rod Length

After installing the ion collector kit, you must adjust the distance from the end of the collector rod to the tip of the spray gun's charging electrode. Finding the optimum location for the rod end requires some experimentation.

If the end of the collector rod is too far away from the tip of the electrode, the ion collector will not function properly. If the end of the rod is too close to the end of the spray gun, powder charging and transfer efficiency may be reduced.

1. See [Figures 1](#) and [2](#). Slide the collector rod (1) back through the bracket until the end is 102–127 mm (4–5 in.) from the front end of the spray gun.
2. Start your powder coating system. While coating parts, slide the collector rod forward until the current shown on the control unit display is 5 to 7  $\mu\text{A}$  higher than the current values you recorded before you installed the kit. Tighten the set screw (2) to secure the rod.
3. Cure the coating on the new parts. Compare the surface finish on these parts with the finish on the parts you coated before installing the kit.
4. If you did not obtain the desired improvement in the surface finish, loosen the set screw and slide the rod forward approximately 25 mm (1-in.). Tighten the set screw.
5. Repeat steps 3 and 4 until you obtain the desired improvement in surface finish.

## Parts

### ***Tube-Mount Gun Ion Collector Kit***

See [Figure 1](#).

Item	Part	Description	Quantity	Note
—	341762	KIT, ion collector kit, tube mount	1	
1	189482	• ROD, ion collector, 11 in.	1	
2	982067	• SCREW, set, cup, M5 x 5, black	1	
3	-----	• BRACKET, ion collector, tube mount	1	
4	982098	• SCREW, flat, slotted, M4 x 6, zinc	1	

### ***Bar-Mount Gun Ion Collector Kit***

See [Figure 2](#).

Item	Part	Description	Quantity	Note
1	189482	ROD, ion collector, 11 in.		

Issued 1/03

Original copyright date 2003. Nordson, the Nordson logo, and Sure Coat are registered trademarks of Nordson Corporation.