

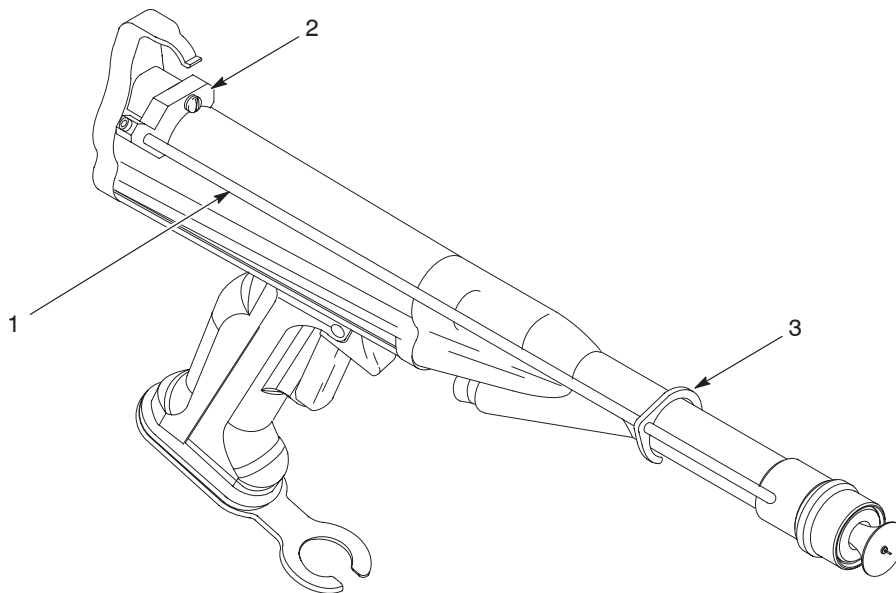
Ion Collector Kits for Sure Coat[®] Manual Powder Spray Guns

Description

This instruction sheet covers the ion collector kits for Nordson Sure Coat manual powder spray guns. Three kits are available: one for short guns, one for long guns, and one for guns with 150-mm lance extensions.

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 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 kit consists of an aluminum bracket (2), plastic support bracket (3), collector rod (1), and fasteners. The distance from the end of the collector rod to the end of the spray gun is adjusted by sliding the rod through the brackets. The collector rod and aluminum bracket are electrically grounded through the gun cable and control unit.



1400842A

Figure 1 Ion Collector Kit

1. Collector rod

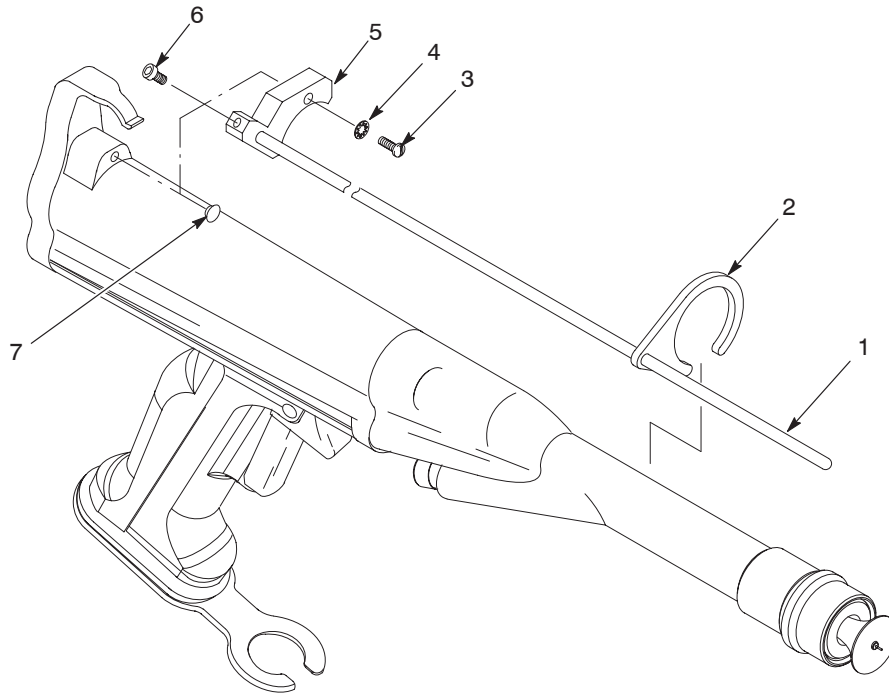
2. Aluminum bracket

3. Support bracket

Installation

NOTE: Before installing the ion collector kit on the spray gun, coat several parts. While coating the parts, write down the current (μA) value shown on the control unit display. Cure the coatings. This establishes a baseline that will help you adjust the rod length.

1. See Figure 2. Remove the plastic plug (7) from the spray gun.
2. Install the aluminum bracket (5) with the pan-head screw (3) and lock washer (4).
3. Snap the support bracket (2) onto the gun barrel.
4. Slide the collector rod (1) through the brackets.
5. Install the socket-head screw (6) into the aluminum bracket. Do not tighten it until you have adjusted the rod length.



1400843A

Figure 2 Installing the Ion Collector Kit

- | | | |
|--------------------|---------------------|----------------------|
| 1. Collector rod | 4. Lock washer | 6. Socket-head screw |
| 2. Support bracket | 5. Aluminum bracket | 7. Plug |
| 3. Pan-head screw | | |

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.

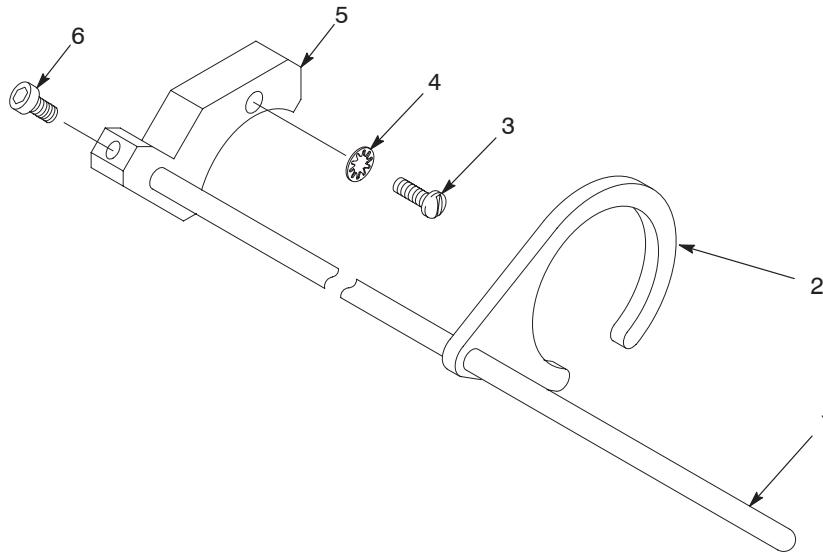
1. See [Figure 2](#). Slide the collector rod (1) back through the brackets until the end is 102–127 mm (4–5 in.) from the front end of the spray gun.
2. Start your powder coating system. While coating parts, slide the collector rod forward until the current shown on the control unit display is 5 to 7 μA higher than the current values you recorded before you installed the kit. Tighten the socket-head screw (6) 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 socket-head screw and slide the rod forward approximately 25 mm (1-in.). Tighten the screw.
5. Repeat steps 3 and 4 until you obtain the desired improvement in surface finish.

Parts

See Figure 3 for all kits.

Item	Part	Description	Quantity	Note
—	275399	KIT, ion collector, short, Sure Coat	1	
—	275402	KIT, ion collector, long, Sure Coat	1	
—	275403	KIT, ion collector, 150 mm, Sure Coat	1	
1	189482	• ROD, ion collector, 11 in.	1	A
1	189483	• ROD, ion collector, 15 in.	1	B
1	189484	• ROD, ion collector, 21 in.	1	C
2	302114	• BRACKET, support, ion collector	1	
3	982124	• SCREW, pan head, M4 x 20	1	
4	983416	• WASHER, lock, M, internal, M4	1	
5	302113	• BRACKET, ion collector	1	
6	982628	• SCREW, socket, M5 x 10, stainless steel	1	

NOTE A: Component of short ion collector kit, part 275399.
 B: Component of long ion collector kit, part 275402.
 C: Component of 150-mm ion collector kit, part 275403.



1400844A

Figure 3 Ion collector kits

Issued 1/03

Original copyright date 1997. Nordson, the Nordson logo, and Sure Coat are registered trademarks of Nordson Corporation.