

# 0-8 CC Accu-Drop Ejector Dispense Gun

Customer Product Manual

Document Number 1090618-06

Issued 06/21

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## Contact Us

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# 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.

## 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 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.
- While operating manual spray guns, make sure you are grounded. Wear electrically conductive gloves or a grounding strap connected to the gun handle or other true earth ground. Do not wear or carry metallic objects such as jewelry or tools.
- If you receive even a slight electrical shock, shut down all electrical or electrostatic equipment immediately. Do not restart the equipment until the problem has been identified and corrected.
- Obtain and read 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.
- Make sure the spray area is adequately ventilated. 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.

## High-Pressure Fluids

High-pressure fluids, unless they are safely contained, are extremely hazardous. Always relieve fluid pressure before adjusting or servicing high pressure equipment. A jet of high-pressure fluid can cut like a knife and cause serious bodily injury, amputation, or death. Fluids penetrating the skin can also cause toxic poisoning.

If you suffer a fluid injection injury, seek medical care immediately. If possible, provide a copy of the SDS for the injected fluid to the health care provider.

The National Spray Equipment Manufacturers Association has created a wallet card that you should carry when you are operating high-pressure spray equipment. These cards are supplied with your equipment. The following is the text of this card:



**WARNING:** Any injury caused by high pressure liquid can be serious. If you are injured or even suspect an injury:

- Go to an emergency room immediately.
- Tell the doctor that you suspect an injection injury.
- Show them this card
- Tell them what kind of material you were spraying

### MEDICAL ALERT — AIRLESS SPRAY WOUNDS: NOTE TO PHYSICIAN

Injection in the skin is a serious traumatic injury. It is important to treat the injury surgically as soon as possible. Do not delay treatment to research toxicity. Toxicity is a concern with some exotic coatings injected directly into the bloodstream.

Consultation with a plastic surgeon or a reconstructive hand surgeon may be advisable.

The seriousness of the wound depends on where the injury is on the body, whether the substance hit something on its way in and deflected causing more damage, and many other variables including skin microflora residing in the paint or gun which are blasted into the wound. If the injected paint contains acrylic latex and titanium dioxide that damage the tissue's resistance to infection, bacterial growth will flourish. The treatment that doctors recommend for an injection injury to the hand includes immediate decompression of the closed vascular compartments of the hand to release the underlying tissue distended by the injected paint, judicious wound debridement, and immediate antibiotic treatment.

## 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.

## Halogenated Hydrocarbon Solvent Hazards

Do not use halogenated hydrocarbon solvents in a pressurized system that contains aluminum components. Under pressure, these solvents can react with aluminum and explode, causing injury, death, or property damage. Halogenated hydrocarbon solvents contain one or more of the following elements:

<u>Element</u>	<u>Symbol</u>	<u>Prefix</u>
Fluorine	F	“Fluoro-”
Chlorine	Cl	“Chloro-”
Bromine	Br	“Bromo-”
Iodine	I	“Iodo-”

Check your material SDS or contact your material supplier for more information. If you must use halogenated hydrocarbon solvents, contact your Nordson representative for information about compatible Nordson components.

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## Action in the Event of a Malfunction

If a system or any equipment in a system malfunctions, shut off the system immediately and perform the following steps:

- Disconnect and lock out system electrical power. Close hydraulic and pneumatic shutoff valves and relieve pressures.
- Identify the reason for the malfunction and correct it before restarting the system.

## Disposal

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

## Description

See Figure 1.

The Nordson Accu-Drop is an air-actuated, fluid-driven self-metering shot valve used in body shop applications to dispense epoxy and sealer-type mastic materials. The Accu-Drops are typically used in applications with an Accu-Drop controller, a bulk material delivery pump, and customer-specific components. The Accu-Drop can be adjusted to dispense varying amounts of material between 0-8 cc.

Refer to Table 1 for the major Accu-Drop components.

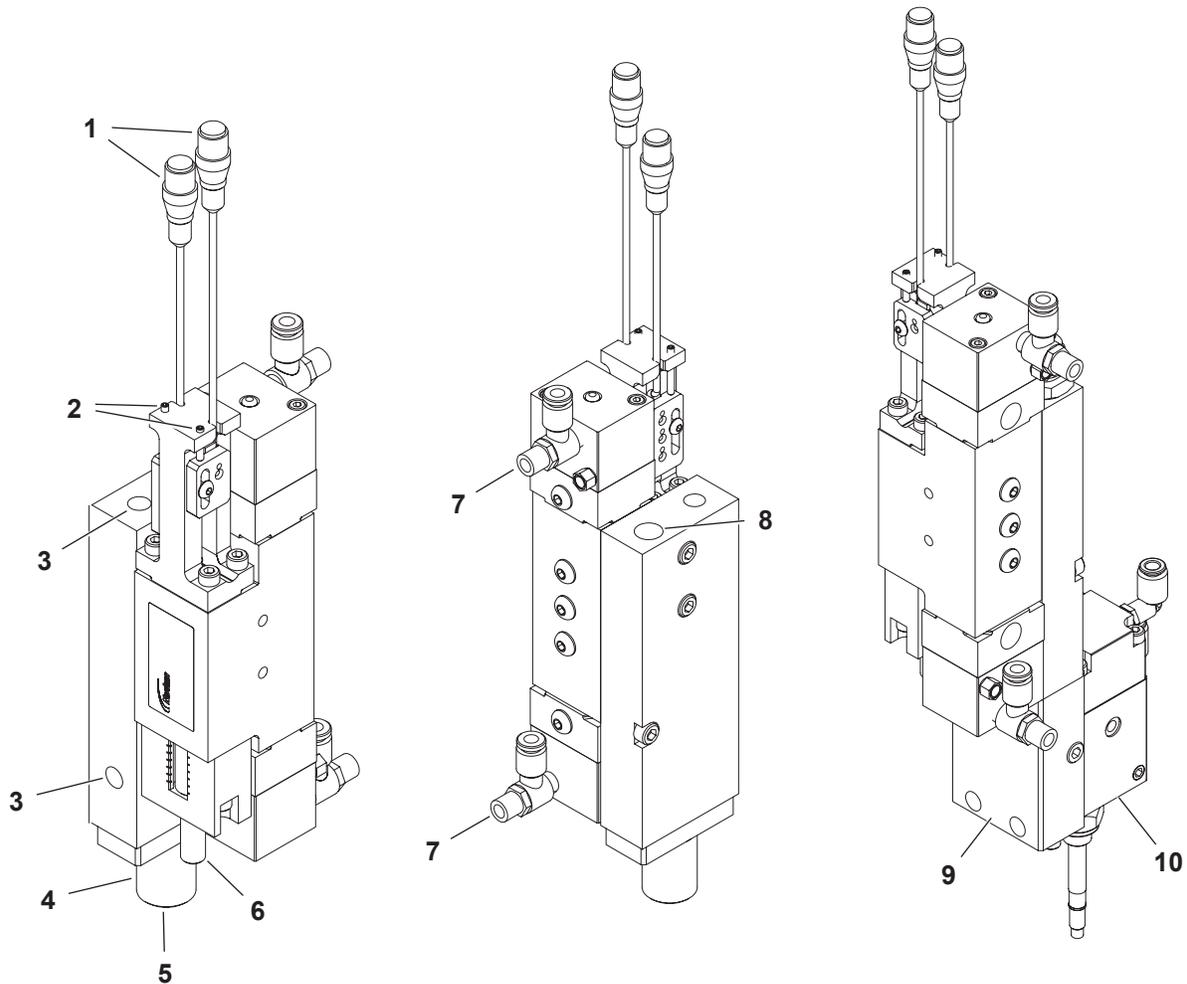


Figure 1 Accu-Drop Components

Table 1 Accu-Drop Components

Item	Description
1	Piston Proximity Switches: Monitor location of piston and verify end of travel
2	Proximity Switch Adjustment Screw: One for each proximity switch; use to adjust the position of each proximity switch
3	Temperature Conditioning: 1/8 NPT
4	Nozzle Adapter: For installing a nozzle onto the Accu-Drop dispense gun
5	Material Outlet: 1/4 NPT
6	Volume Adjuster: Use to increase or decrease the material shot size from 0-8 cc
7	Air Flow Control: controls the shifting speed of the material directional valve
8	Material Inlet: 1/4 NPT
9, 10	Manifold (9) and Auto-Flo II Dispense Valve (10): For anti-drool applications

## Specifications

See Figure 2.

### Minimum Mounting Space

2.7 in, (6.85 cm) center to center

### Shot Size

0-8 cc

### Minimum Cycle Time

< 1 sec (dependant on viscosity, pressure, and shot size)

### Compressed Air Requirements

60-90 psi (4.1-6.2 bar)

### Electrical Requirements

Supply Voltage: 10-30 Vdc

Operational Current: ≤ 200 mA

### Operating Temperature Range

35-180°F (1.67-82°C)

### Fluid Orifice

1/4 NPT (inlet and outlet)

### Minimum Material Viscosity

50,000 centipoise

### Operating Pressure Range

750-3500 psi (52-241 bar)

(proportional to fluid viscosity)

### Maximum Operating Pressure

120 psi (8.3 bar)

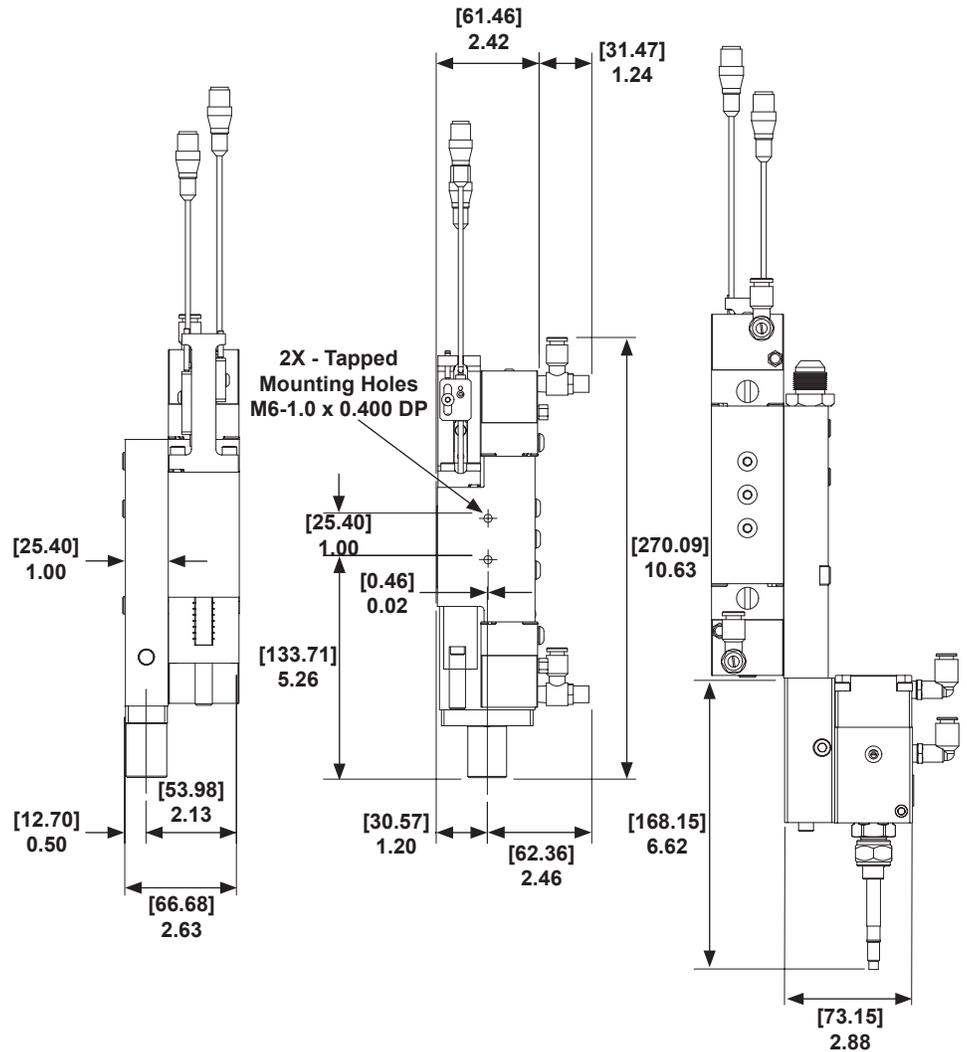


Figure 2 Specifications

## Installation



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

High pressure fluids are extremely dangerous. Do not place any part of your body in front of a dispensing device, drain, or leak in a high pressure system. A jet of high fluid can cause serious injury, toxic poisoning, or death. Relieve system and material pressure before disconnecting hoses or components from this equipment.

## Timing and Sequence

See Figure 3.

Each Accu-Drop dispense gun requires two inputs and two outputs. The two inputs are Proximity Switches 1 and 2. The two outputs control the coils of the the 2-position double-operator dented pneumatic solenoid valve. This valve is wired to Outputs 1 and 2 and connected to the Accu-Drop dispense gun in such a manner that when the Outputs are ON, they apply air to the fittings as shown.

Use Output 1 to dispense when both proximity switches are ON. Use Output 2 to dispense when both proximity switches are off.

**NOTE:** If one proximity switch remains ON and the other one remains OFF, refer to the *Troubleshooting* section beginning on page 15 to resolve the problem.

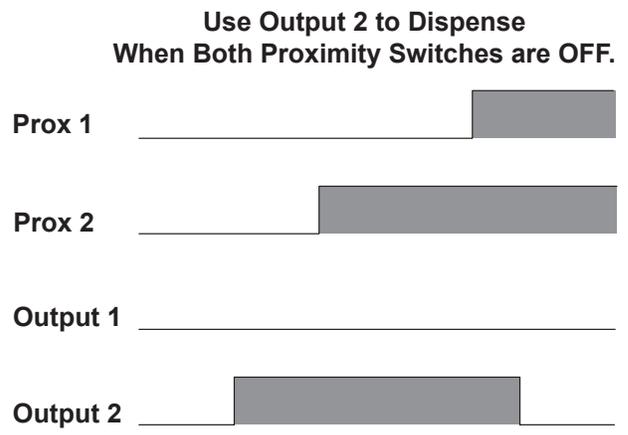
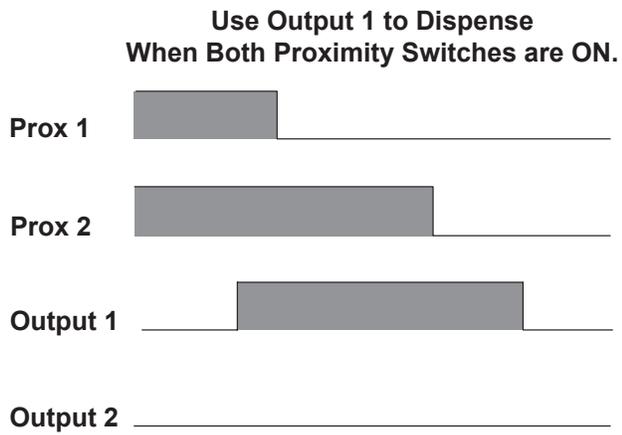
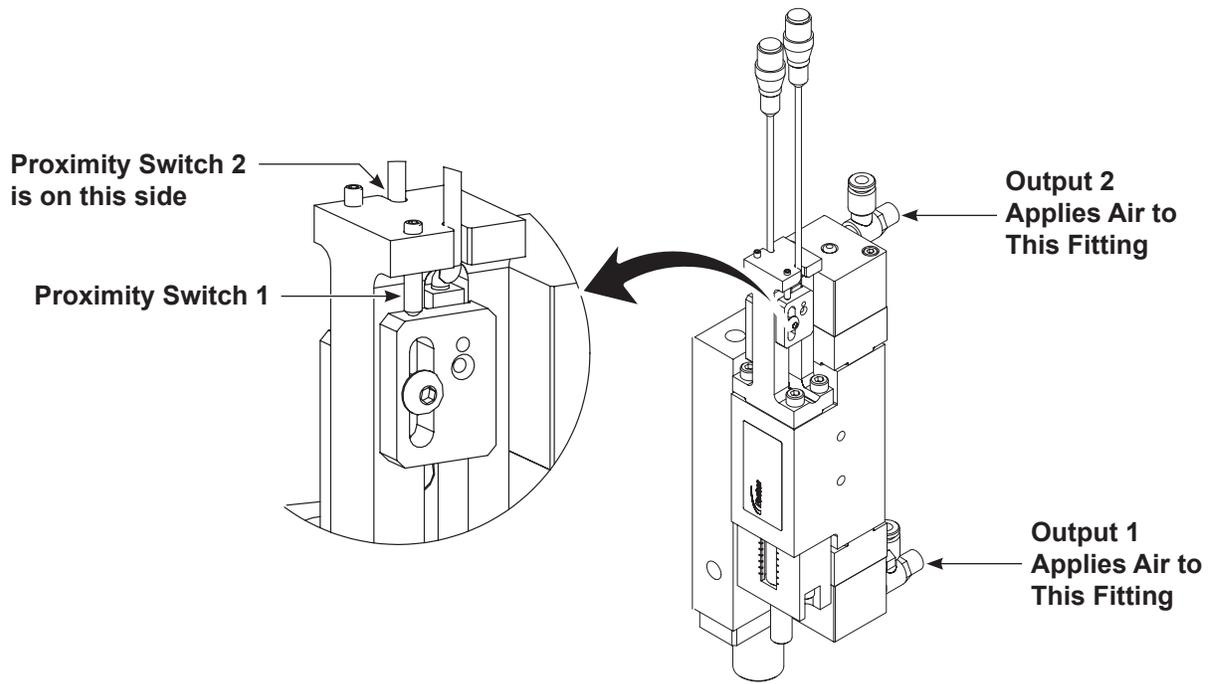


Figure 3 Timing and Sequencing

## Mounting and Connections

See Figure 4 and follow the procedures listed in Table 2.

Table 2 Accu-Drop Connections

Item	Description
Shot Size	The Accu-Drop is shipped in the 8 cc position. Refer to the Set the Shot Size procedure to change the position.
Mounting	The dispense gun can be mounted to a bracket using two M6 tapped holes on the body (1) or holster-mounted using nozzle extension. Contact your Nordson representative for more information about configuring a mount specific to your application.
Air	Connect ¼ in. tubing to the control valves (2). The air supply requirement is for standard shop air, 10 cfm momentary at 120 psi (8.3 bar) maximum. Anti-Drool Guns: Connect ¼ in. tubing to the air close (10) and air open (11) fittings.
Fluid	Connect the fluid hose as determined by the mounting specification.
Control Valves	Adjust the control valves (3). Refer to the Adjust the Control Valves procedure.
Proximity Switches	Connect the proximity switches (4) to either the controller or a J-box. Adjust and test the proximity switches. Refer to the Adjust the Proximity Switches procedure.

## Setting Shot Size

The shot size determines the amount of material dispensed by the Accu-Drop. Accu-Drops are shipped in the 8 cc position.

Each displacement mark (5) on the displacement adjuster cap (6) represents 1 cc.

### Reducing the Shot Size

1. De-pressurize the dispense gun and turn the displacement adjusting screw (7) clockwise, driving the metering plug (8) into the body.
2. Read the displacement volume (9) by counting the number of marks from the bottom of the dispense gun body to the bottom of the metering plug.

### Increasing the Shot Size

1. Loosen the adjusting screw (7) by turning counterclockwise until the face of the screw aligns with the desired mark (5).
2. The metering plug will extend to meet the screw once the material pressure is restored and the dispense gun is cycled.

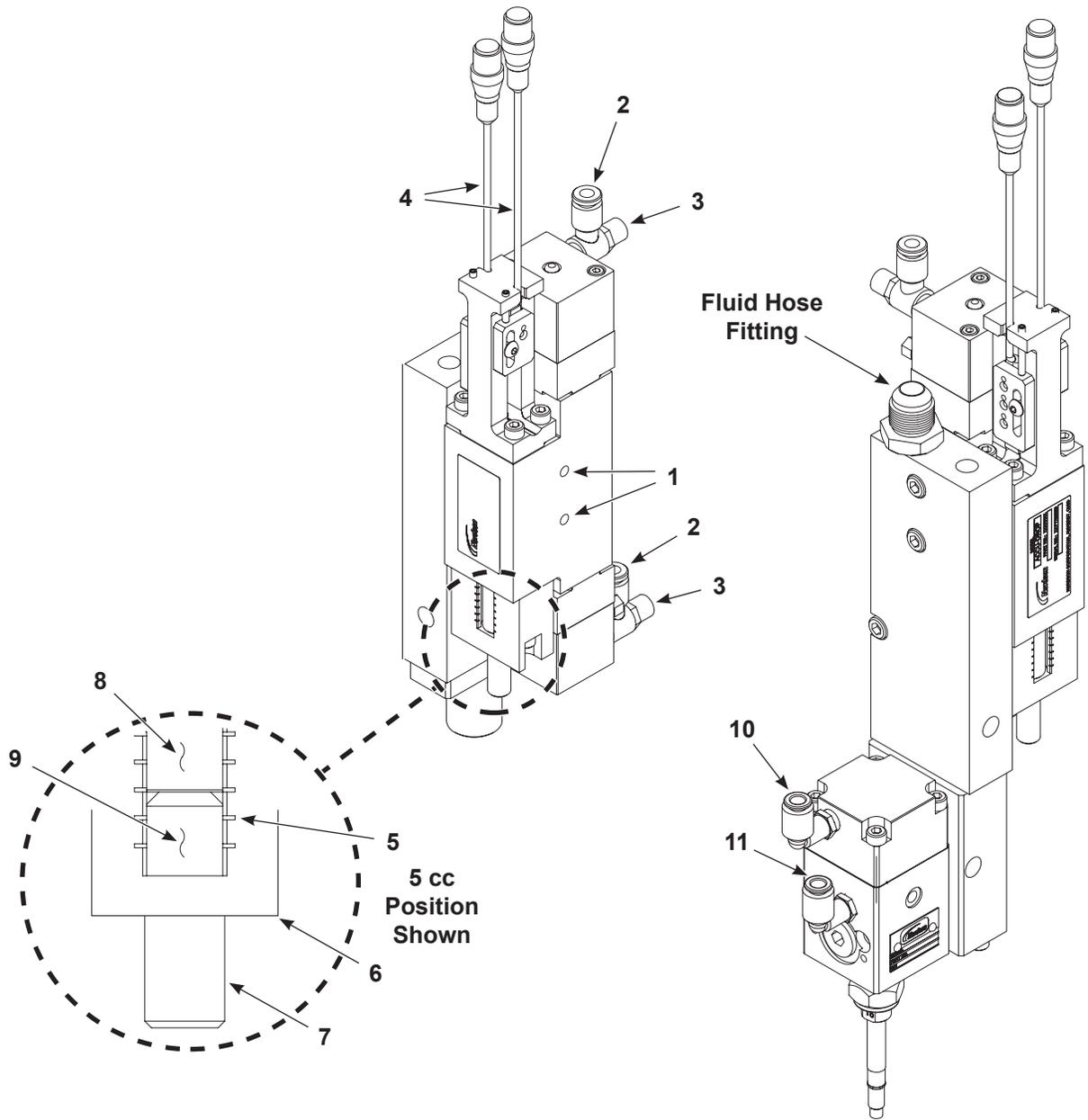


Figure 4 Adjusting the Shot Size

## Adjusting the Air Flow Control Valves

Adjust the valves before starting production operation.



**CAUTION:** Failure to properly adjust the speed control valves will allow the directional valve to cycle too quickly and may damage seals.

1. See Figure 5. Loosen the locking collar (1) on the control valves (3).
2. Turn the knob (2) clockwise until it bottoms out into the control valves (3). Back out the knob two turns.
3. Tighten the locking collar (1) securely.
4. Cycle the dispense gun. Observe the needle thru the weep hole (4). If the needle does not fully stroke within about 0.25-0.50 seconds, verify that the air supply pressure is between 60-90 psi (4.1-6.2 bar) and readjust the valves.

**Top of Dispense Gun    Bottom of Dispense Gun**

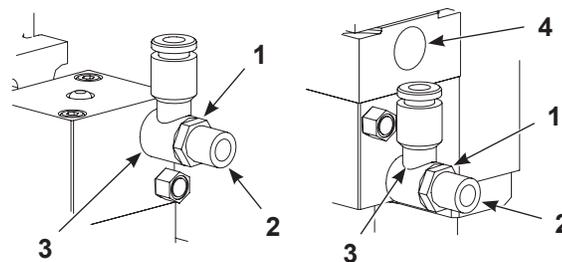


Figure 5 Adjusting a Control Valve

## Adjust the Proximity Switches

Use these procedures to adjust the proximity switches.

Use a 1.5 mm ball end hex key to adjust the proximity switches.

### Adjust the Upstroke Proximity Switch

1. Cycle the dispense gun to the UP position.
2. See Figure 6. Loosen the screw (3) until the switch plate (2) moves freely.
3. While applying upward hand pressure on the switch plate (2), perform the following:
  - a. Using the 1.5 mm hex key, turn the adjusting screw (1) counterclockwise until the LED (4) goes out.
  - b. Slowly turn the adjusting screw (1) clockwise until the LED (4) comes on. Turn the adjusting screw another ¼ turn clockwise.
  - c. Tighten the screw (3) to 14 in.-lb (1.3 N•m).

## Adjust the Downstroke Proximity Switch

1. Cycle the dispense gun to the DOWN position.
2. See Figure 6. Loosen the screw (3) until the switch plate (2) moves freely.
3. While applying upward hand pressure on the switch plate (2), perform the following:
  - a. Using the 1.5 mm hex key, turn the adjusting screw (1) clockwise until the LED (4) is on.
  - b. Slowly turn the adjusting screw (1) counterclockwise until the LED (4) goes out. Turn the adjusting screw another  $\frac{1}{4}$  turn counterclockwise.
  - c. Tighten the screw (3) to 14 in.-lb (1.3 N•m).

## Test Adjustments

1. Cycle the Accu-Drop.
2. Both LEDs should light when the piston moves to the top end of travel.
3. Both LEDs should be off when the piston moves to the bottom end of travel.
4. Readjust the settings as necessary.

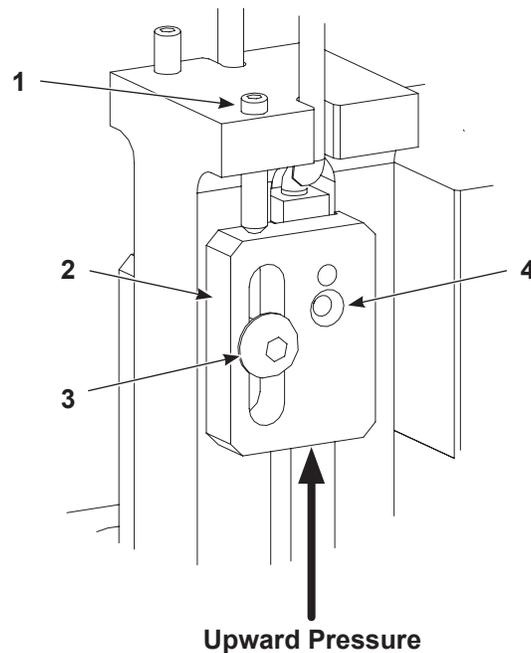


Figure 6 Typical Proximity Switch Adjustment

## Operation

Accu-Drop operation is dependent upon the system configuration. Refer to your system manual or contact your Nordson representative for more information.

## Maintenance

To maintain optimum operation, check for leaks around the piston rod slot and the weep holes at the end of every shift.

# 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. If you cannot solve a problem with the information given here, contact your local Nordson representative for help.

Accu-Drop		
Problem	Possible Cause	Corrective Action
1. Material leaking at piston rod slot	Worn piston rod seal cartridge	Replace the seal cartridge.
2. Material leaking at weep holes	Worn valve stem cap seal	Replace both cap seal assemblies.
3. One proximity switch is on and the other one is off.	Proximity switches not adjusted properly	Verify that the cables from the proximity switches are attached to the controller and that the cables are intact. Re-adjust the proximity switch locations.
		Re-adjust the proximity switch locations. Refer to <i>Adjust the Proximity Switches</i> procedure on page 12. If the switches have failed, replace the switches.
4. Incomplete piston stroke (partial bead size)	Obstruction in one of the piston cavities	Clear the piston area of any contamination or cured material. Reassemble and purge to make sure the valve is clear.
5. No material dispensed	Loss of air pressure to valve air pistons	Restore air pressure to a minimum of 60 psi.
	Loss of material pressure to dispense	Check the material supply for the proper pressure at the gun.
	Air piston or valve shift rod stuck due to failed seals	Replace the seal assemblies or the air pistons as required.
6. Gun cycling too slow	Material pressure too low	Increase the material supply pressure (maximum of 3500 psi).
	Air flow control valves not adjusted properly	Perform procedures listed in the <i>Adjust the Air Flow Control Valves</i> on page 12.
	Material viscosity too high	Check for the proper temperature conditioning settings.
Accu-Drop Controller		
1. Receiving dispense fault (Gun #X: DISP-FLT) at controller	Proximity switch not adjusted properly	Adjust the proximity switch locations. Refer to <i>Adjust the Proximity Switches</i> procedure on page 12.
	Timer not set properly	Change the dispense timer value from the SETUP menu. Refer to the <i>Operation</i> section in the <i>Accu-Drop Controller</i> manual for more complete instructions.  User may have to adjust the dispense timer when materials are changed.  Check the material supply and the unloader material supply hoses.  Load new material or troubleshoot for material blockages, as indicated. Refer to the unloader manual for more information.

## Repair



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

System or material pressurized. Relieve pressure. Failure to observe this warning may result on serious injury or death.

Disconnect, lock out, and tag electrical power at a disconnect or breaker in the service line ahead of electrical equipment before servicing.

**NOTE:** Repair instructions for the Anti-Drool Dispense Valve are in manual 1104014, *Auto-Flo Anti-Drool Dispense Valves*.

## Consumable Items

Keep the items listed in Table 3 on hand when performing repairs.

Table 3 Consumable Items

Part Number	Item	Application
900200	Thread-locking adhesive	Apply to threads of applicable parts.
1031834	TFE grease	Lubricate O-rings and applicable parts.

## Removing the Valve from the Fixture

1. Shut off the drum unloader.
2. Purge the dispensing valve to relieve the pressure in the hose and valve.
3. Shut off and lock out all power to the system.
4. Disconnect the material supply hose from the material inlet fitting on the valve.
5. Disconnect the air lines from the valve.
6. Remove the valve from the fixture.

## Repair Kits

Refer to the following paragraphs for repair kit procedures.

### Air Piston Kit

See Figure 7.

**NOTE:** The Air Piston Kit includes items 4 and 6 shown in Figure 7.

1. Remove the two screws (1) and air cap (2) from the body. Clean the face (3) of the seal cap housing.
2. Remove the old piston (4), spring (5), and quad ring (6) from the air cap and discard the old piston.
3. Clean the air cap bore and the quad ring groove (7) with suitable solvent, such as isopropyl alcohol.
4. Lubricate the bore and groove with TFE grease.
5. Install the new quad ring (6) in the groove (7).
6. Lubricate piston stem (4a) and seal (4b) with TFE grease.
7. Place the spring (5) onto the piston (4), as shown in Figure 7.
8. Install the piston (4) in the air cap (2).
9. Apply the thread-locking adhesive to the screws (1) while holding the air cap (2) against the seal cap (3) to compress the spring (5). Install the screws (1) and tighten to 27 in.-lb (3.05 N•m).

## Seal Cap Kit

See Figure 7.

1. Remove the two screws (1) and air cap (2). Set aside to reuse.

2. Remove the two screws (8) from the seal cap (3).

**NOTE:** The seal cap on the XD Accu-Drop dispense gun is charged with grease. To prevent discharging the grease, do not remove the rod (11) from the seal cap (3).

3. Using pry slots (9), remove the seal cap (3) from the body (10).

**NOTE:** The next step can be omitted for XD Accu-Drop dispense guns because the rod (11) is included with the seal cap.

4. Only perform the following step for Accu-Drop UHMW and PEEK dispense guns:

a. Remove the push rod (11) from the seal cap and discard the seal cap. The rod (11) will be reused.

b. Clean the rod (11) and clean any material from the bore of the body (10) at least to the installation depth of the seal cap.

c. Lubricate the rod (11) with TFE grease and push into the new seal cap from behind (square end) until it becomes flush with the seal cap face (3).

5. Make sure the new O-ring (12) is installed on the cylindrical section of the seal cap. Lubricate the O-ring and the bore with TFE grease.

**NOTE:** Replace the O-ring (13) if it has been removed from the board of the body bore (14).

6. Install the new seal cap (3) into the bore, pressuring firmly until bottomed. The material may displace out of the inlet port during the installation of the cap.

7. Apply the thread-locking adhesive to screws (8) and install. Tighten the screws to 93 in.-lb (10.51 N•m).

8. Reinstall the air cap (2). Apply thread-locking adhesive to the screws (1) and tighten to 27 in.-lb (3.05 N•m).

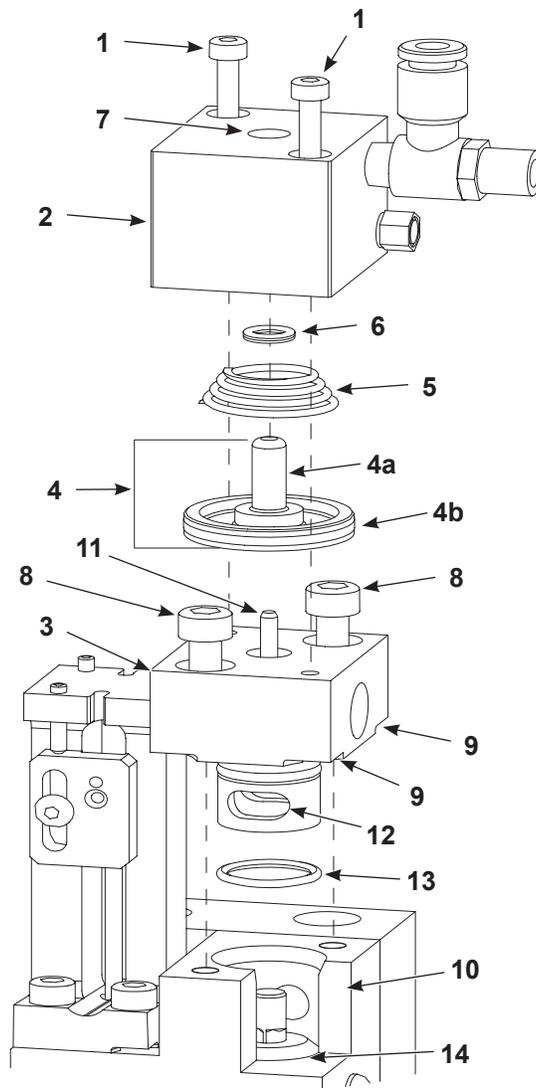


Figure 7 Repair Kits

## Metering Seal Cartridge Kit

**NOTE:** The metering seal cartridge kit includes items 12, 14, 15, and 16 shown in Figure 8.

1. Before depressurizing, actuate the dispense gun so that the piston rod (1) is at its highest position. This will make disassembly easier.
2. Remove the sensor plates (2, 3) by removing screws (4). Do not disturb the set screws (5, 6).
3. Remove the four screws (7) and carefully lift proximity cap (8) straight up. Pry slots (9) may be used to help break free.



**CAUTION:** Excessive bending of the cap during removal could break the piston stem. Keep the cap straight to prevent damage.

4. With the cap (8) lifted off the stem (1), remove the contents (10) of the seal cartridge kit.
5. Clean the cartridge cavity in the cap (8) and bore in the dispense gun body (11).
6. Remove the O-ring (12) from the cylindrical portion of the proximity cap and clean the groove (13).
7. Install the new O-ring (12) and lubricate with TFE grease.
8. Make sure the brass rod bearing (14) is installed into the seal cartridge (15) and the O-ring (16) is in place over the bearing flange.
9. Grease the O-ring (16) and install cartridge assembly (14, 15, 16) into the proximity cap (8), properly aligning flat with the tab.
10. Install the proximity cap, cartridge assembly (8, 10) over the stem (1), applying downward pressure to engage the stem through the seal. Continue applying downward pressure until the flange is nearly seated.
11. Apply thread-locking adhesive to the four screws (7) and install finger tight, then sequence tighten in a cross pattern ¼ turn each until tightened to 54 in.-lb (6.10 N•m).
12. Reinstall the sensor plates (2, 3) and apply thread-locking adhesive to screws. Tighten the screws (4) to 16 in.-lb (1.81 N•m). while holding the plates against the set screws (5, 6).
13. Return the dispense gun to service. Check for leaks and verify sensor function.

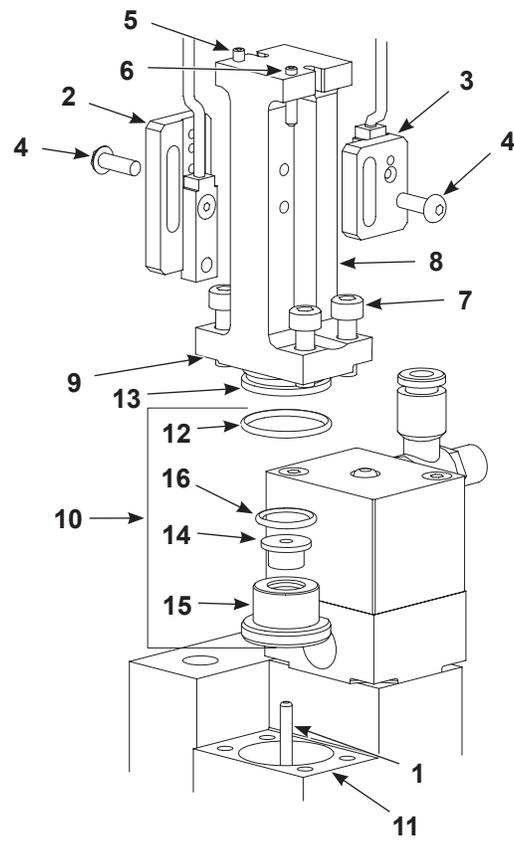


Figure 8 Metering Seal Cartridge Kit

## Metering Piston and Metering Plug

**NOTE:** The metering piston includes items 1 and 12. The piston sleeve includes items 3, 8, 10, and 12. The metering plug includes items 7 and 8. Items are shown in Figure 9.

1. Perform steps 1-3 of the *Metering Seal Cartridge Kit* procedure on page 20.
2. Grab the piston rod (1) and pull metering piston straight out of the dispense gun.
3. Wipe any material from the piston chamber (2) and clean the sleeve bore (3) to permit inspection of the bore condition.
4. If the bore (3) is badly scored, replace. If not, proceed to step 12.
5. Remove the adjuster cap (5) by removing two screws (6).
6. Remove the metering plug (7) by pushing out from the piston out the bottom.
7. Remove the piston sleeve (3) by performing all steps of the *Piston Sleeve* procedure on page 24.
8. Clean the bore (4) and the O-ring grooves (9).
9. Lubricate the bore (4) and O-ring grooves (9) using TFE grease.
10. Install the O-rings (8, 10), the new piston sleeve, and the metering plug (7).

**NOTE:** If replacing the seal cartridge kit, the metering piston kit, and the sleeve kit, there will be extra O-rings (12). If replacing the sleeve kit and the metering plug kit, there will be extra O-rings (8).

11. Install the adjuster cap (5) using two screws (6) and thread-locking adhesive. Tighten the screws to 54 in.-lb (6.10 N•m).
12. Lubricate the piston sleeve bore (3) and the new metering piston seal (1) with TFE grease.
13. Install the metering piston (1).
14. Repeat steps 6-13 of the *Metering Seal Cartridge Kit* procedure on page 20.

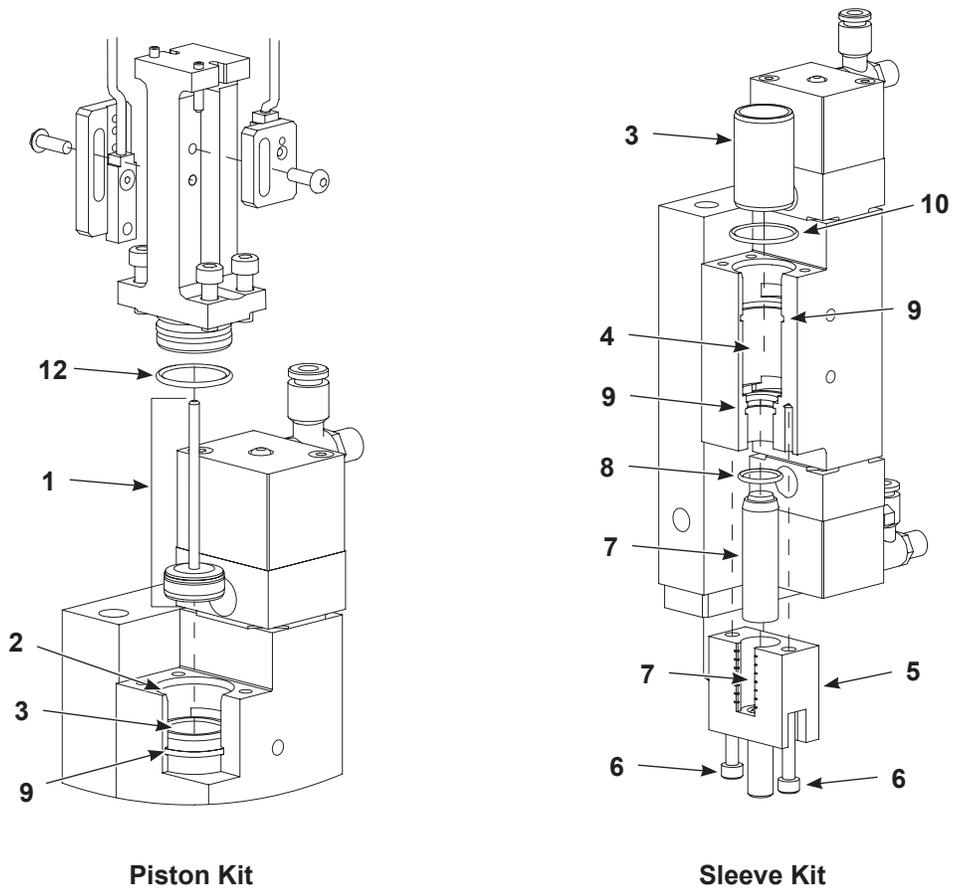


Figure 9 Piston and Sleeve Kits

## Piston Sleeve

**NOTE:** The sleeve extractor tool (p/n 1090290) and the drift pin tool are required to perform the following procedure.

1. Perform steps 1-6 of the *Metering Piston and Metering Plug* procedure on page 22. See Figure 10.

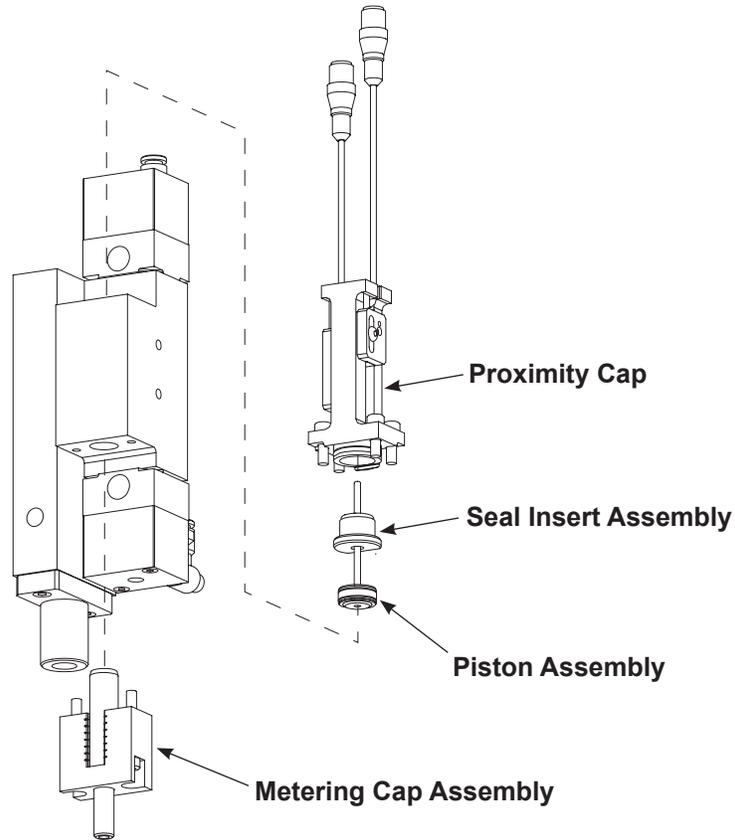
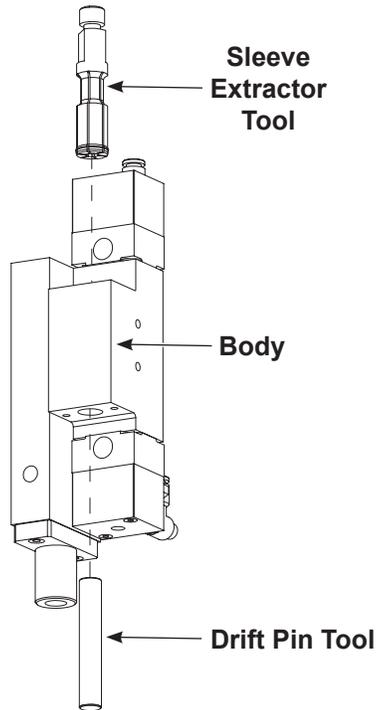


Figure 10 Removal of Proximity Cap, Piston, and Metering Cap Assemblies

See Figure 11.

2. Before inserting the sleeve extracting tool into the body, the tool should be in its relaxed position. The screw should be turned out a minimum of  $\frac{1}{4}$  in. from the tool and the dowel pin pushed into the tool until it bottoms on the screw.
3. Remove the O-ring.
4. Slip the tool into the body until it bottoms out.

**Sleeve Extractor and Drift Pin  
(Exploded View)**



**Sleeve Extractor Tool  
(Insertion View)**

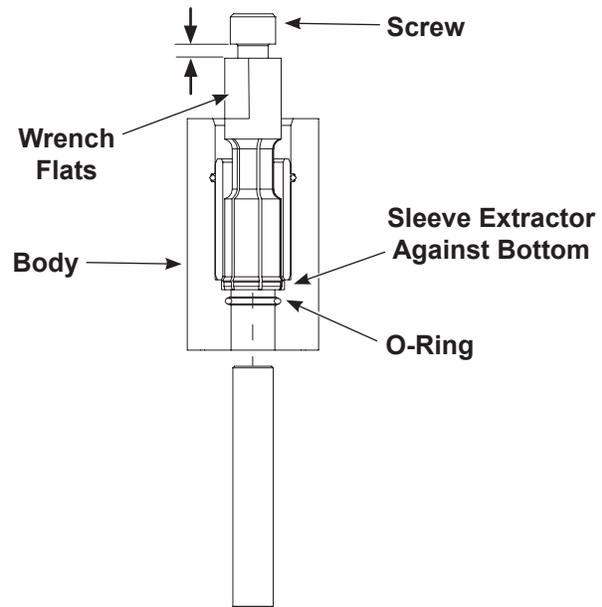


Figure 11 Sleeve Extractor and Drift Pin (Exploded View)

See Figure 12.

5. Hold the flats on the tool with a wrench. Tighten the screw until the screw head touches the tool.
6. Insert the tool drift pin into the body.
7. Strike the tool drift pin with a soft mallet to drive the sleeve from the body.
8. Remove the O-ring.
9. Loosen the screw from the tool ¼ in. minimum. Push the protruding dowel pin back into the tool until it bottoms on the screw.
10. Remove the tool from the sleeve.
11. Clean the tool of all material. Reset the screw head to ¼ in. from the tool. Verify that the dowel pin slides back and forth when the tool is shaken.

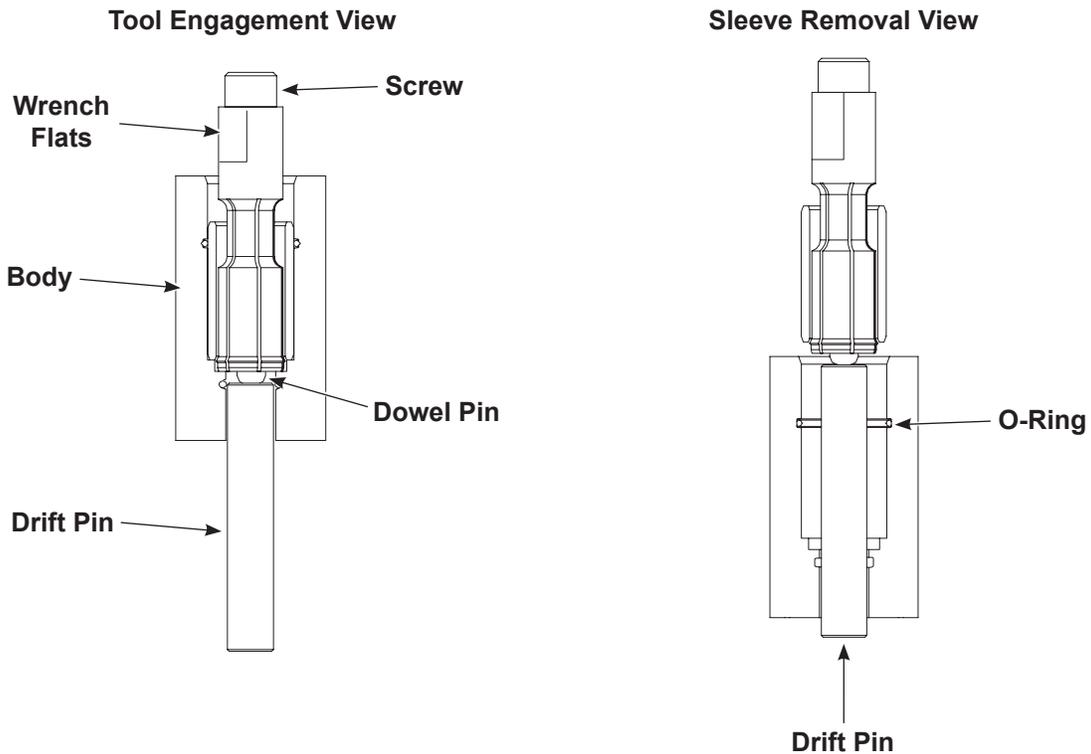


Figure 12 Tool Engagement and Sleeve Removal

## Parts

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

### Using the Illustrated Parts List

Numbers in the Item column correspond to numbers that identify parts in illustrations following each parts list. The code NS (not shown) indicates that a listed part is not illustrated. A dash (—) is used when the part number applies to all parts in the illustration.

The number in the Part column is the Nordson Corporation part number. A series of dashes in this column (- - - - -) means the part cannot be ordered separately.

The Description column gives the part name, as well as its dimensions and other characteristics when appropriate. Indentions show the relationships between assemblies, subassemblies, and parts.

- If you order the assembly, items 1 and 2 will be included.
- If you order item 1, item 2 will be included.
- If you order item 2, you will receive item 2 only.

The number in the Quantity column is the quantity required per unit, assembly, or subassembly. The code AR (As Required) is used if the part number is a bulk item ordered in quantities or if the quantity per assembly depends on the product version or model.

Letters in the Note column refer to notes at the end of each parts list. Notes contain important information about usage and ordering. Special attention should be given to notes.

Item	Part	Part	Part	Description	Quantity	Note
—	-----	—	—		—	
1	-----					
2						
<i>Continued...</i>						
NOTE: A.						
B.						
NS: Not Shown						
AR: As Required						

# Accu-Drop Dispense Guns

See Figure 13 and refer to the following parts list.

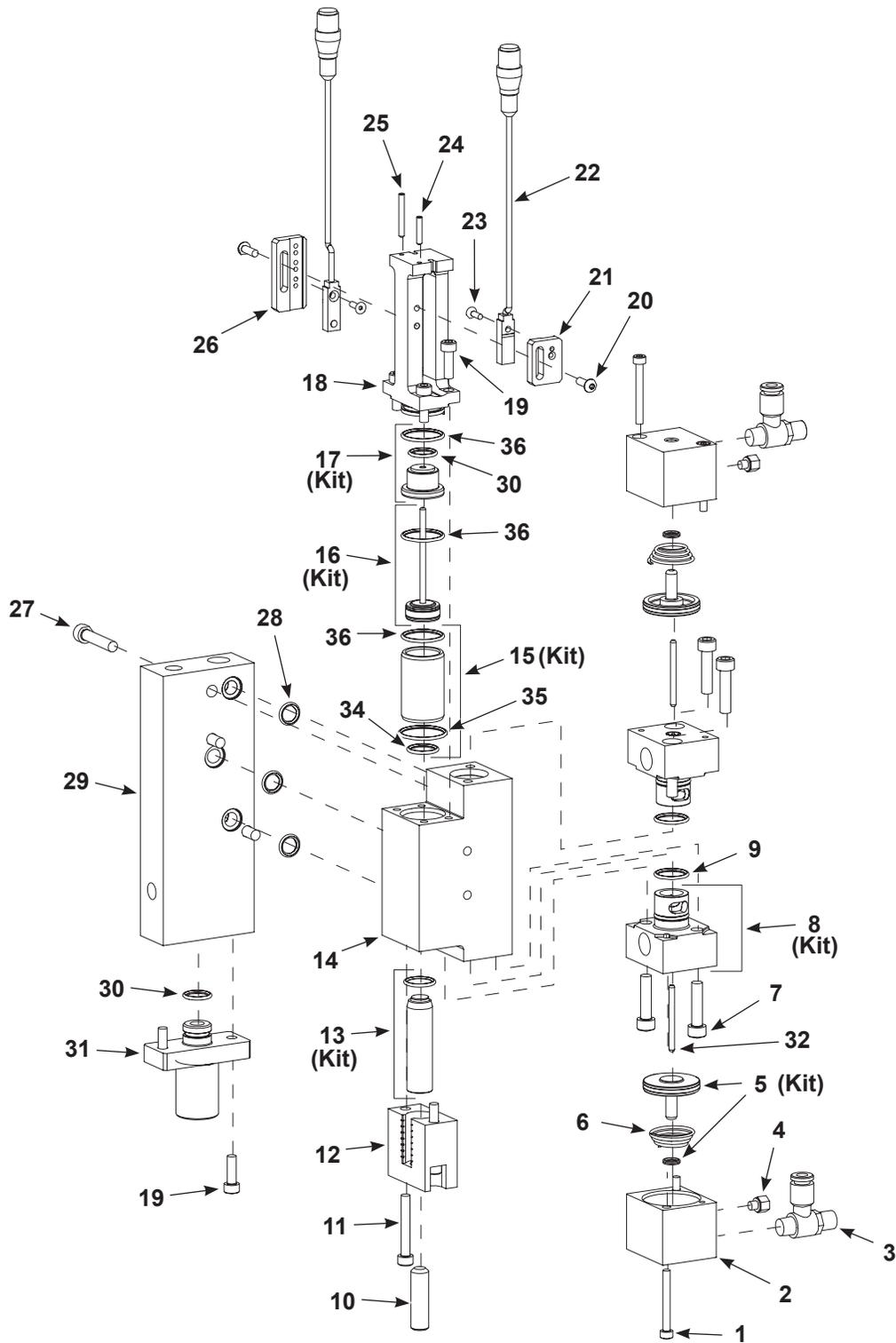


Figure 13 2-8 cc Accu-Drop

Item	Part	Part	Part	Description	Quantity	Note
—	1097807	—	—	DISPENSE GUN, Accu-Drop, XD	1	
—	—	1099779	—	DISPENSE GUN, Accu-Drop, UHMW	1	
—	—	—	1099780	DISPENSE GUN, Accu-Drop, Peek	1	
1	982453	982453	982453	• SCREW, M4 x 35, skt, bl	4	
2	1083875	1083875	1083875	• CAP, air, gun, Accu-Drop	2	
3	1034040	1034040	1034040	• SPEED, control elbow, ¼ tube x ⅛ NPT	2	
4	1080038	1080038	1080038	• VENT, breather, 10-32	2	
5	1089694	1089694	1089694	• KIT, air piston, Accu-Drop	2	A
6	1611113	1611113	1611113	• SPRING, conical, 1.00 x 0.60, stainless steel	2	
7	982031	982031	982031	• SCREW, skt, M6 x 25 bl	4	
8	1097994	—	—	• KIT, cap, seal, Accu-Drop, XD	2	
	—	1089695	—	• KIT, cap, seal, Accu-Drop, UHMW	2	
	—	—	1092152	• KIT, cap, seal, Accu-Drop, Peek	2	
9	940169	940169	940169	• O-RING, Viton, 0.625 x 0.750 x 0.063	2	B
10	345196	345196	345196	• SCREW, set, soc, M10 x 35, flt pt, stl, blk	1	
11	982386	982386	982386	• SCREW, skt, M5 x 35, bl	2	
12	1084332	1084332	1084332	• CAP, adjuster, displacement	1	
13	1099777	1099777	1099777	• KIT, metering plug, Accu-Drop	1	A
14	-----	-----	-----	• BODY, gun, Accu-Drop	1	
15	1089697	1089697	1089697	• KIT, metering piston sleeve, Accu-Drop	1	A
16	1099770	1099770	1099770	• KIT, metering piston, Accu-Drop	1	A
17	1100263	—	1100263	• KIT, metering seal cartridge, Accu-Drop Peek	1	A
	—	1100262	—	• KIT, metering seal cartridge, Accu-Drop, UHMW	1	A
18	1099717	1099717	1099717	• CAP, proximity, Accu-Drop	1	
19	982166	982166	982166	• SCREW, skt, M5 x 16, bl	6	
20	982652	982652	982652	• CAP SCREW, M4 x 12 mm, stl, blk	2	
21	1079950	1079950	1079950	• PLATE, sensor, proximity, fill	1	
22	1038326	1038326	1038326	• SWITCH, proximity, ejector gun, refill/disp	2	
23	982834	982834	982834	• SCREW, flt, skt, M3 x 10, bl	2	
24	345207	345207	345207	• SCREW, set, cup, M3 x 16 bl	1	
25	345211	345211	345211	• SCREW, set, cup, M3 x 25, bl	1	
26	1099712	1099712	1099712	• PLATE, sensor, proximity, dispense	1	
27	982032	982032	982032	• SCREW, skt, M6 x 30, bl	3	
28	1085214	1085214	1085214	• O-RING, Viton, 0.500 x 0.375 x 0.063, 90Duro	3	
29	1083886	1083886	1083886	• MANIFOLD, material, gun, Accu-Drop	1	

Continued...

30 0-8 CC Accu-Drop Ejector Dispense Gun

Item	Part	Part	Part	Description	Quantity	Note
30	1085213	1085213	1085213	• O-RING, Viton, 0.625 x 0.500 x 0.063, 90Duro	2	
31	1080096	1080096	1080096	• NOZZLE, ¼ NPT, gun, ejector	1	C
32	-----	1086424	1086424	• ROD, push, needle, Accu-Drop	2	D, E
33	1085155	1085155	1085155	• QUAD RING, -010, 0.250 ID x 0.070 Viton	2	
34	940155	940155	940155	• O-RING, hotpnt, 0.562S 0.688 x 0.063	1	
35	940214	940214	940214	• O-RING, hotpnt, 0.938 x 1.063 x 0.063	1	
36	1089712	1089712	1089712	• O-RING, Viton, 0.938 x 0.813 x 0.063, 90Duro	1	F

NOTE: A. Kits include required O-rings.

B. Replace this O-ring if removing from the bore of the body (item 14). The same O-Ring is also used on and comes with the seal cap kit (item 8).

C. The nozzle (item 31) is not included with Anti-Drool Gun 1618151.

D. The rod is not part of the seal cap kit. The existing rod will be re-used.

E. Accu-Drop XD Gun - rod is included with the seal cap (item 8).

F. The O-Ring (item 36) is only used on the proximity cap (item 18) but is supplied in multiple kits.

## Accu-Drop Anti-Drool Dispense Gun

See Figure 14 and refer to the following parts list.

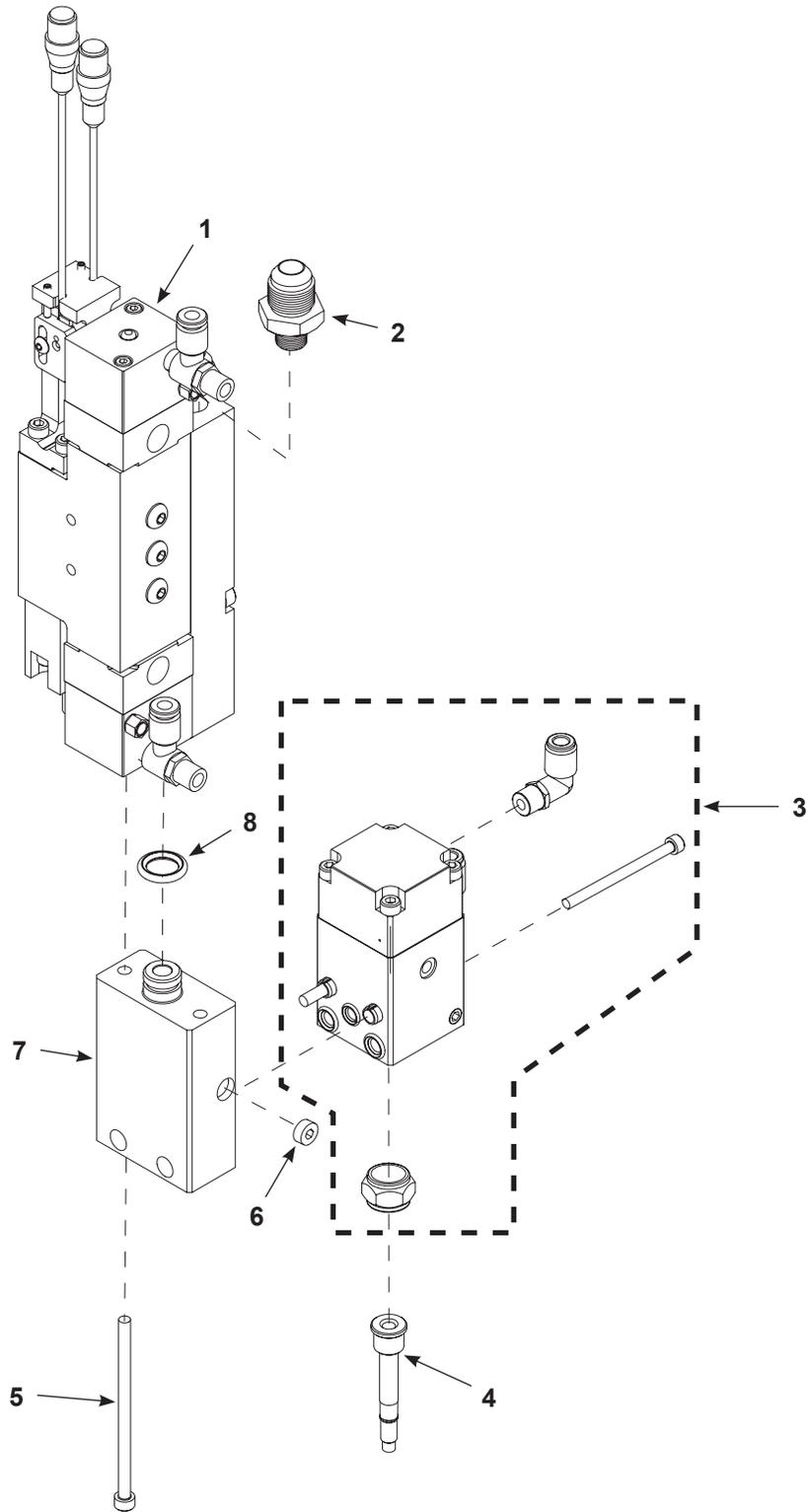


Figure 14 0-8 cc Accu-Drop Anti-Drool

Item	Part	Description	Quantity	Note
—	1618151	DISPENSE GUN, Accu-Drop, with manifold mount, anti-drool	1	
1	1097807	• DISPENSE GUN, Accu-Drop, XD	1	A
2	972106	• CONNECTOR, 37°, 3/4-16 x 1/4 steel	1	
3	1089565	• VALVE, Auto-Flo II, Anti-Drool, manifold	1	B
4	175616	• NOZZLE, extrude, 0.080 in. diameter	1	
5	-----	• SCREW, socket, M5 x 90, black, per ISO 4762	2	
6	973483	• PLUG, pipe, socket 1/8, steel	1	
7	1096648	• MANIFOLD, Auto-Flo to Accu-Drop, temperature conditioned.	1	
8	1085213	• O-RING, Viton, 0.500 x 0.625 x 0.063, 90 Duro	1	
NS	156289	• LUBRICANT, Mobil SHC™ 634, 30122-8	AR	
NS	900464	• ADHESIVE, Loctite® 242®, blue, removable, 50 m	AR	
NS	900481	• ADHESIVE, pipe thread	AR	

NOTE: A. See Figure 13 and refer to the *Accu-Drop XD* parts list on page 29 to order parts.

B. Refer to manual 1104014, *Auto-Flo Anti-Drool Dispense Valves*, to order parts.

NS: Not Shown

AR: As Required

## Tools

Part	Description
1090290	TOOL, sleeve removal, Accu-Drop