# CanWorks<sup>®</sup> Remote Manifold Assemblies

Customer Product Manual Part 331280B02 Issued 5/07

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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## **Table of Contents**

Safety	1
Qualified Personnel	1
Intended Use	1
Regulations and Approvals	1
Personal Safety	2
High-Pressure Fluids	2
Fire Safety	3
Halogenated Hydrocarbon Solvent Hazards .	4
Action in the Event of a Malfunction	4
Disposal	4
Description	5
Theory of Operation	5
Installation	6
Fluid Lines and Fittings	6
Calibrated Orifice and Fixed Orifice	6

Operation	6
	0
Start-Up	6
Shutdown	6
Using the Fluid Bypass	7
Repair	7
A7A Stainless Steel Valve Replacement	8
O-ring Replacement	8
A7A Stainless Steel Valve	8
Fixed Orifice	8
Calibrated Orifice	9
Pressure Transducer Adapter Replacement	9
Parts	10
Using the Illustrated Parts List	10
CanWorks Remote Manifold Assembly	11
CanWorks Mini-Remote Manifold Assembly	
with Right-Hand Threads	12
Manifold Soft Goods Kit	12
Calibrated Orifice	13
Fixed Orifice	13
Drosouro Tranaducoro	11
	14

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# **CanWorks® Remote Manifold Assemblies**

## Safety

Read and follow these safety instructions. Task- and equipment-specific warnings, cautions, and instructions are included in equipment documentation where appropriate.

Make sure all equipment documentation, including these instructions, is accessible to 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 Material Safety Data Sheets (MSDS) 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 MSDS 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 him this card
- Tell him 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.

#### Fire Safety (contd)

- Provide adequate ventilation to prevent dangerous concentrations of volatile particles or vapors. Refer to local codes or your material MSDS 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>Symbol</u>	Prefix
F	"Fluoro-"
CI	"Chloro-"
Br	"Bromo-"
I	"lodo-"
	Symbol F Cl Br I

Check your material MSDS 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.

#### 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**

The CanWorks remote manifold assembly allows a spray gun to function with a CanWorks system while it is located remotely from the manifold. A large- and mini-version of the remote manifold are available. The two manifolds work the same with the only differences being the size and the mini-remote manifold uses right hand threads.

#### Theory of Operation

See Figure 1. The coating material enters the manifold assembly through port A. The material passes through a calibrated orifice (2), which meters the amount of coating material. A pressure transducer (6) then senses the fluid pressure of the coating material as it travels into the spray gun.

The coating material that does not pass through the calibrated orifice circulates back through a fixed orifice (1) and back out to the pump circulation valve at port B.

If the spray gun is not spraying, the coating material circulates back to the A7A stainless steel valve (5) and back to the pump circulation valve at port B.

When the spray gun is spraying the A7A stainless steel valve closes to stop circulation so the CanWorks system can monitor the fluid pressure.

The fluid bypass (3) can be used when making repairs or performing periodic maintenance on the manifold assembly. Refer to *Using the Fluid Bypass* on page 7 for information on using the fluid bypass.



1200206A

Figure 1 Remote CanWorks Manifold Assembly

- 1. Fixed orifice
- 2. Calibrated orifice
- Fluid bypass
   Manifold

- 5. A7A stainless steel valve
- 6. Pressure transducer

## Installation



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

Install the remote CanWorks manifold assembly near the spray gun using the two  $\frac{5}{16}$ -18 socket screws provided.

#### Fluid Lines and Fittings

Fluid Line	Fitting
Manifold to Spray Gun:	$^{1}/_{8}$ -in. OD steel tubing is recommended for the supply and return lines from the manifold to the spray gun.
Pump to the Manifold:	The supply and return lines from the pump should be $1/_4$ -in. ID hose. The fluid fittings are $1/_2$ -20 JIC.

## **Calibrated Orifice and Fixed Orifice**

Install the appropriate calibrated orifice and fixed orifice for your application needs. Refer to *Calibrated Orifice* on page 13 or *Fixed Orifice* on page 13 for ordering information.

## Operation



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

Startup

If repair or maintenance procedures have been completed while the system is shutdown, the manifold will need to be purged of air before operation can begin.

See Figure 2. Purge air from the system by cracking the air bleed vent port (5) with a hex wrench. Leave this vent open until all the trapped air has escaped the manifold. Close the air bleed vent port.

#### Shutdown

Shut down the remote CanWorks manifold by relieving system pressure from the pump to the remote CanWorks manifold. Refer to the appropriate pump manual for additional information.

#### Using the Fluid Bypass

See Figure 2. While completing repairs or maintenance on the remote manifold assembly the fluid bypass may be used to keep the coating material flowing to the spray gun.

Activate the fluid bypass by turning the three-way ball valves (1, 4) 90 degrees. This will cause the flow of coating material to enter the fluid bypass (2) instead of the manifold (3).

The coating material travels through the bypass tube and then out the second three-way ball valve (4) at Port B to the spray gun.



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

The remote CanWorks manifold assembly requires minimal repair procedures. Follow these steps before performing any repair procedures:

- 1. Shut off pressure to the system at the pump regulator. Refer to the appropriate pump manual for additional information.
- 2. Shut off power to the CanWorks system.
  - Or

Activate the fluid bypass. Refer to *Using the Fluid Bypass* for more information.

#### A7A Stainless Steel Valve Replacement

See Figure 3. Refer to the *A7A Stainless Steel Valve* instruction sheet for information on replacing this valve (8).

#### **O-ring Replacement**

**NOTE:** A manifold soft goods kit is available with the O-rings necessary to replace the O-rings of the remote CanWorks manifold assembly. Refer to *Manifold Soft Good Kit* on page 12 for ordering information.

#### **A7A Stainless Steel Valve**

See Figure 3. To replace the O-rings in the A7A stainless steel valve (8), refer to the A7A Stainless Steel Valve instruction sheet.

**NOTE:** The manifold soft goods kit contains an O-ring (9) for the A7A stainless steel valve.

#### **Fixed Orifice**

- 1. See Figure 3. Unscrew the fixed orifice (1) from the manifold.
- 2. Remove the O-rings (2, 4) and back-up ring (3).
- 3. Replace the O-rings and the back-up ring.

**NOTE:** Place a small amount of lubricant on the O-rings after they are installed on the fixed orifice.

4. Insert the fixed orifice into the manifold and tighten securely.



Figure 3 Replacing the O-rings

- 1. Fixed orifice
- 2. O-ring
- 3. Backup ring

- 4. O-ring
- 5. Calibrated orifice
- 6. O-ring

- 7. O-ring
- 8. A7A stainless steel valve
- 9. O-ring

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#### **Calibrated Orifice**

1. See Figure 3. Unscrew the calibrated orifice (5) from the manifold.

**NOTE:** The calibrated orifice has a left-hand thread.

- 2. Remove the O-rings (6, 7).
- 3. Replace the O-rings.

**NOTE:** Place a small amount of lubricant on the O-rings after they are installed on the calibrated orifice.

4. Insert the calibrated orifice into the manifold and tighten securely.

#### Pressure Transducer Adapter Replacement

See Figure 4. The remote manifold assembly includes two adapters for use with the pressure transducer.



**CAUTION:** The pressure transducer adapters should not be used at pressures higher than 69 bar (1000 psi). Exceeding this pressure will cause failure.

- Use the male-to-male adapter (6) for pressure transducers with pre-amp.
- Use the male-to-female adapter (1) for pressure transducers without pre-amp.
- 1. Relieve the fluid pressure from the system or activate the fluid bypass. Refer to *Using the Fluid Bypass* on page 7.
- 2. Remove power from the pressure transducer (3 or 4).
- 3. Unscrew the adapter (1 or 6) from the manifold. Then unscrew the adapter from the pressure transducer.
- 4. Replace the O-rings on the adapter and install the adapter back onto the pressure transducer.
- 5. Install the pressure transducer into the remote CanWorks manifold.



Figure 4 Pressure Transducer Adapters

- 1. Male-to-female adapter
- 2. O-ring
- 3. Pressure transducer without pre-amp
- 4. Pressure transducer with pre-amp
- 5. O-ring
- 6. Male-to-male adapter
- 7. O-ring

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## Parts

To order parts, call the Nordson Customer Service Center or your local Nordson representative. Use this five-column parts list, and the accompanying illustration, to describe and locate parts correctly.

#### 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.

ltem	Part	Description	Quantity	Note
—	0000000	Assembly	1	
1	000000	Subassembly	2	A
2	000000	• • Part	1	

## CanWorks Remote Manifold Assembly

See Figure 5.

ltem	Part	Description	Quantity	Note
	249951	MANIFOLD ASSEMBLY, remote CanWorks	1	
1	169623	<ul> <li>HOLDER, restrictor, mini-insert</li> </ul>	1	
2	945099	<ul> <li>O-RING, EPR, <sup>3</sup>/<sub>8</sub>-in. tube</li> </ul>	1	А
3	334863	<ul> <li>ADAPTER, CO plate, left-hand thread</li> </ul>	1	
4	940136	• O-RING, EPR, 0.438 x 0.563 x 0.063 in.	1	А
5		<ul> <li>MANIFOLD, CanWorks, remote</li> </ul>	1	В
6		TUBE, by-pass	1	
7	330449	TUBE FITTING, elbow, 0.38-in. tube x     0.25-in. NPT, stainless steel	2	
8	973029	<ul> <li>NIPPLE, <sup>1</sup>/<sub>4</sub> x <sup>1</sup>/<sub>4</sub> in., stainless steel</li> </ul>	4	С
9	101992	<ul> <li>VALVE, ball, three-way, stainless steel</li> </ul>	2	
10	972177	<ul> <li>ELBOW, male, 37, <sup>1</sup>/<sub>2</sub>-20 x <sup>1</sup>/<sub>4</sub> in., stainless steel</li> </ul>	1	С
11	972029	<ul> <li>CONNECTOR, male, 37, <sup>1</sup>/<sub>4</sub>-20 x <sup>1</sup>/<sub>4</sub> in., stainless steel</li> </ul>	1	С
12	981908	<ul> <li>SCREW, socket, <sup>1</sup>/<sub>4</sub>-20 x 0.75 in.</li> </ul>	4	
13	334867	VALVE, assembly, A7A	1	
NS	981745	<ul> <li>SCREW, socket, <sup>5</sup>/<sub>16</sub>-18 x 2.75 in.</li> </ul>	2	
NS	901911	WRENCH, adjuster, module	2	
NS	334864	• ADAPTER, <sup>3</sup> / <sub>8</sub> x <sup>3</sup> / <sub>8</sub> in., EPR	1	
NS	334866	<ul> <li>ADAPTER, <sup>3</sup>/<sub>8</sub> x <sup>7</sup>/<sub>16</sub> in., EPR</li> </ul>	1	
NOTE A: Ap	ply lubricant to	O-rings before inserting into the manifold.		
B: A mini-remote manifold with right-hand threads is also available. See Figure 6.				
C: Apply a small amount of pipe adhesive before connecting to the system.				
NS: Not Show	'n			



Figure 5 Remote CanWorks Manifold Assembly

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## CanWorks Mini-Remote Manifold with Right-Hand Threads

See Figure 6.

ltem	Part	Description	Quantity	Note
—	1075501	MANIFOLD MINI REMOTE, Canworks, with plugs	1	
1	1075484	<ul> <li>MANIFOLD, mini remote, CanWorks, R.H. CO Port</li> </ul>	1	
NS	324172	PLUG, MEG	2	



Figure 6 CanWorks Mini-Remote Manifold

## Manifold Soft Goods Kit

The manifold soft goods kit contains the parts necessary to replace the O-rings and back-up ring of the remote CanWorks manifold assembly. This table describes what parts are included in the kit and where they are used in the remote CanWorks manifold assembly.

See Figure (Item #)	Part	Description	Quantity	Where Used
	334876	KIT, soft goods manifold, EPR	1	
3 (2)	945099	<ul> <li>O-RING, EPR, <sup>3</sup>/<sub>8</sub>-in. tube</li> </ul>	1	Fixed orifice
3 (3)	954028	• BACK-UP RING, single, <sup>5</sup> / <sub>16</sub> x <sup>7</sup> / <sub>16</sub> in.	2	Fixed orifice
3 (4)	940116	• O-RING, EPR, 0.313 x 0.438 x 0.063 in.	1	Fixed orifice
3 (6)	940136	• O-RING, EPR, 0.438 x 0.563 x 0.063 in.	1	Calibrated orifice
3 (7)	703777	• O-RING, EPR, 0.125 x 0.250 x 0.063 in.	1	Calibrated orifice
3 (9)	940159	• O-RING, EPR, 0.563 x 0.688 x 0.063 in.	1	A7A stainless steel valve
4 (5)	945088	• O-RING, EPR, <sup>1</sup> / <sub>4</sub> -in. tube	3	Pressure transducer without pre-amp and its adapter
4 (2, 7)	945087	• O-RING, EPR, <sup>3</sup> / <sub>16</sub> -in. tube	1	Pressure transducer with pre-amp transducer

## **Calibrated Orifice**

Proper CO-Plate selection is important to the operation of the CanWorks system. Use this chart to select and order the appropriate calibrated orifice for your system. Cross-reference the selected nozzle size with the system fluid pressure.

**NOTE:** The columns in this chart contain the six-digit CO-Plate part number. The number in parenthesis is the CO-plate designation number, which is marked on the front of the CO-Plate.

Nozzle		Fluid Pressure in psi				
	250	300	350	400	450	500
0.010				247707 (015)	247708 (02)	
0.015		247707 (015)	247708 (02)	247708 (02)	247709 (025)	
0.020	247707 (015)	247708 (02)	247709 (025)	247709 (025)	247709 (025)	
0.025	247708 (02)	247709 (025)	247710 (03)	247710 (03)	247711 (04)	
0.035	247709 (025)	247710 (03)	247710 (03)	247711 (04)	247712 (05)	

## Fixed Orifice

#### See Figure 7.

ltem	Part	Description	Quantity	Note
1	122346	RESTRICTOR, MI, M4, 0.020 in., orifice	1	А
1	122345	RESTRICTOR, MI, M4, 0.050 in., orifice	1	А
—	179366	ACCESSORY GROUP, M I, M4, 0.010	1	
1	122318	RESTRICTOR, MI, M4, 0.010 in., orifice	1	
2	121709	SEAL, ring, M4	1	
3	940113	• O-RING, Viton, 0.313 x 0.438 in.	1	
4	954028	<ul> <li>RING, back-up, single, <sup>5</sup>/<sub>16</sub> x <sup>7</sup>/<sub>16</sub> in.</li> </ul>	1	
5	945046	<ul> <li>O-RING, Viton, <sup>5</sup>/<sub>16</sub>.in. OD tube</li> </ul>	1	
NOTE A: Th pa	ne O-rings and b art, 179666.	back-up ring for this restrictor need to be ordered from	the accessory grou	p



Figure 7 Fixed Orifice

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## Pressure Transducers

Part Description		Quantity	Note
179455	TRANSDUCER, 600 psi, CanWorks	1	А
771220	TRANSDUCER AND AMPLIFIER, 600 psi	1	В
332768 TRANSDUCER AND AMPLIFIER, 600 psi, high temperature 1 B		В	
NOTE A: F	ressure transducer with pre-amp. See Figure 4 (4).		
B: F	B: Pressure transducer without pre-amp. See Figure 4 (3).		

# A7A Stainless Steel Valve



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

#### 1. Description



**WARNING:** System or material pressurized. Relieve pressure. Failure to observe may result in serious burns.

See Figure 1. The valve is a compact stainless steel airless spray valve. It may be used in a wide variety of applications, most specifically as a component of the CanWorks manifold assembly.





#### Theory of Operation

See Figure 2. When the valve is actuated, air enters at the air input (1). This air lifts the piston/locknut assembly (2), and allows the packing cartridge (3) and the ball tip (4) to rise. The coating material passes through the opening in the seat (5), and exits the port (6). When the air pressure is removed, the ball tip (4) returns to the seat (5) and stops the flow of coating material.



<ol> <li>Installation</li> <li>Repair</li> </ol>	<ul> <li>See Figure 3. To install the valve, perform the following steps:</li> <li>1. Apply lubricant to the O-ring (20).</li> <li>2. Insert the valve into the manifold assembly.</li> <li>3. Tighten the socket screws (19).</li> <li>4. Install pneumatic line to air inlet (12).</li> <li>5. Connect fluid tubing to fluid inlet (11) or insert the pipe plug (14).</li> </ul> <b>NOTE:</b> If possible, flush the valve with clean solvent before removing the valve from the system.	
Disassembly	<ol> <li>Remove both the fluid and air pressure to the valve.</li> <li>Remove the A7A valve from the manifold assembly.</li> <li>See Figure 3. Remove the screws (1), lockwashers (2), and cylinder (3) from the gun body (13).</li> <li>Remove the gasket (4) from the gun body (13).</li> <li>Remove the locknut (5).</li> <li>Remove the screws (19) attaching the valve adapter (18) to the gun body (13).</li> <li>Pull the valve adapter (18) and O-ring (11) from the gun body (13).</li> <li>Remove the packing cartridge (15) with the ball tip (16) by pushing at the air cylinder end.</li> <li>Check the ball tip (16) for wear or scoring, and replace the ball tip if necessary.</li> <li>Check the packing cartridge (15) and O-ring (11). Replace the packing cartridge or O-ring if necessary.</li> </ol>	

Assembly 1	1.	See Figure 3. After coating the packing cartridge (15) with a small amount of non-detergent grease, install the packing cartridge.
2	2.	Install the valve adapter (18). Tighten the screws (19) evenly to compress the packing cartridge spring.
з	3.	Insert the seal nut (8) and O-ring (9) into the piston disc (10).
4	4.	Screw the piston/locknut assembly (7) into the packing cartridge (15) clockwise until it rests against the gun body (13).
5	5.	Screw the piston/locknut assembly (7) counterclockwise $^{3}/_{4}$ until a 0.41 to 0.58-mm (0.016 to 0.023-in.) gap exists between the piston and the gun body (13).
6	6.	Hold the piston/locknut assembly (7), and lock it into place with the locknut (5) and thread locking compound.

See Figure 3. If you need assistance when ordering parts, contact your Nordson Corporation representative.

Item	Part	Description	Quantity	Note
_	334 867	Valve assembly, A7A, stainless steel	1	
—		<ul> <li>Valve assembly, A7A, stainless steel</li> </ul>	1	
1	981 140	• • Screw, fillister-head, #10-32 x 1.00, slotted, zinc	4	
2	983 120	• • Lockwasher, external, split, #10, steel, nickel	4	
3	153 028	• • Cylinder	1	
4	153 031	• • Gasket, gun, H20	1	А
5	984 539	<ul> <li>Locknut, #10-32, upper</li> </ul>	1	А
6	900 424	Compound, thread lock, VC-3	AR	
7		Piston, locknut, assembly	1	А
8	240 274	• • • Nut, seal, lock	1	А
9	940 090	• • • O-ring, Viton, 0.208 ID x 0.070 in. wide, brown	1	А
10		• • • Disc, piston	2	
NOTE A: Th	NOTE A: This part is also available in the A7A Piston with seals repair kit, part 106 230.			
AR: As Required				
	Continued on next page			

4.

Parts

ltem	Part	Description	Quantity	Note
NS			1	
NS		• • • Seal, piston	1	
11	940 159	• • O-ring, EPR, 0.563 x 0.688 x 0.063 in.	2	B, C
12	972 119	• • Elbow, male, $\frac{1}{4}$ tube x $\frac{1}{8}$ NPT	1	
13		• • Body, gun	1	
14	900 784	<ul> <li>Cap/plug, tapered, 0.485 OD</li> </ul>	1	
15	170 497	<ul> <li>Cartridge, packing, stainless steel, EPR</li> </ul>	1	
NS	330 438	<ul> <li>Plate, adapter, valve</li> </ul>	1	В
16		• • • Tip, ball	1	В
NS		• • • Seat, cartridge	1	В
17	940 176	••• O-ring, EPR, 0.688 x 0.813 x 0.063 in.	1	A, B, C
18		Adapter, valve	1	
19	981 893	• • Screw, socket head, #10-32 x 0.500, zinc	4	
20	940 159	• • O-ring, EPR, 0.563 x 0.688 x 0.063 in.	2	B, C
NS	900 755	<ul> <li>Cap/plug, tapered, 0.788 OD</li> </ul>	1	
NS	900 481	Adhesive, pipe/thread/hydraulic sealant	AR	
NS	703 191	• • Plug, pipe, socket, flush, stainless steel, <sup>1</sup> / <sub>4</sub> in.	1	D
NS	981 800	• • Screw, drive, round, 0 x 0.125 in., zinc	2	
NS	900 223	• • Lubricant, O-ring, Parker, 4 oz	AR	
NS	152 999	Wrench	1	
NOTE A: This part is also available in the A7A Piston with seals repair kit, part 106 230.				
B: This part is also available in the seat assembly service kit, part 330 242.				
C: This part is also available in the A7A valve EPR soft goods service kit, part 334 877.				
D: This is a special-order part. Contact your Nordson Corporation representative for more information.				
AR: As Required				
NS: Not Shown				

#### Parts (contd.)



Fig. 3 Exploded View of the A7A Stainless Steel Valve

#### Service Kits

See Figure 3.

#### Seat Assembly

ltem	Part	Description	Quantity	Note
_	330 242	Service kit, seat assembly	1	
11	940 159	• O-ring, EPR, 0.563 x 0.688 x 0.063 in.	2	
NS		Seat, valve	1	
16		• • Tip, ball	1	
NS		Seat, cartridge	1	
18		Adapter, valve	1	
17	940 176	• O-ring, EPR, 0.688 x 0.813 x 0.063 in.	1	
NS: Not Show	wn			

# A7A Piston with Seals

ltem	Part	Description	Quantity	Note
—	106 230	Service kit, piston with seals, A7A	1	
4	153 031	• Gasket, gun, H20	1	
NS	153 022	Piston, assembly, H20	1	
7		<ul> <li>Piston, locknut, assembly</li> </ul>	1	
8	240 274	• • • Nut, seal, lock	1	
9	940 090	• • O-ring, Viton, 0.208 ID x 0.070 in. wide, brown	1	
5	984 539	<ul> <li>Locknut, #10-32, upper</li> </ul>	1	
11	940 159	<ul> <li>O-ring, EPR, 0.563 x 0.688 x 0.063 in.</li> </ul>	2	
18	940 176	<ul> <li>O-ring, EPR, 0.688 x 0.813 x 0.063 in.</li> </ul>	1	
NS: Not Show	NS: Not Shown			

ltem	Part	Description	Quantity	Note
NS	334 877	Kit, soft goods, A7A valve, EPR	1	
11	940 159	<ul> <li>O-ring, EPR, 0.563 x 0.688 x 0.063 in.</li> </ul>	2	
NS	940 136	<ul> <li>O-ring, EPR, 0.438 x 0.563 x 0.063 in.</li> </ul>	1	
17	940 176	<ul> <li>O-ring, EPR, 0.688 x 0.813 x 0.063 in.</li> </ul>	1	
NS: Not Shown				

#### A7A Valve EPR Soft Goods

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