Manifold-Mounted to Flange-Mounted Solenoid Valve Conversion

**WARNING:** Allow only personnel with appropriate training and experience to operate or service the equipment. The use of untrained or inexperienced personnel to operate or service the equipment can result in injury, including death, to themselves and others, and damage to the equipment.

**Introduction**

A slice applicator can be configured to use either manifold-mounted or flange-mounted solenoid valves, depending on the speed requirements of your application. Most installed slice applicators have manifold-mounted solenoid valves. If your application requires the fast response times that can be provided by the flange-mounted solenoid valve version of the UM3 module, this instruction sheet provides the procedure to make the conversion, shown in Figure 1.

**NOTE:** If your applicator has non-UM3 modules and you wish to replace them with UM3 modules that also use manifold-mounted solenoid valves, no special procedure is required—you can simply remove the old modules and install the new UM3 modules. Refer to the module replacement procedure in the UM3 module manual. For a replacement part number cross-reference for non-UM3 and UM3 modules, refer to *Replacement UM3 Part Numbers for Non-UM3 Modules* under *Parts* at the end of this instruction sheet.
Introduction (contd)

Figure 1  Converting from a manifold-mounted solenoid valve to a flange-mounted solenoid valve

1. Manifold-mounted solenoid valve
2. Heat isolation gasket
3. UM3 module with flange-mounted solenoid valve
4. Solenoid valve diverter plate assembly
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You will need the following items:
- UM3 modules with flange-mounted solenoid valves
- solenoid valve diverter plate assemblies
- standard and metric wrench set
- drain/collection pans

Refer to Parts for the correct replacement UM3 module part numbers and for the solenoid valve diverter plate assembly part number. Refer to the UM3 module documentation for all UM3 module part numbers and additional information on UM3 modules.

Prepare for Conversion

1. Disable the applicator pumps by locking out the motor control to prevent any unwanted restarts before this procedure is completed.
2. Relieve pressure from the applicator by turning the drain valve screw (located on the front of the filter block) one turn counterclockwise.
3. Place drain pans under the modules and energize the solenoid valves to open the modules, relieving any residual pressure between the pumps and modules.
4. When adhesive stops flowing from the modules, stop energizing the solenoid valves.
5. Shut off the air supply to the solenoid valves.

Remove the Old Modules and Solenoid Valves

1. Using a 3-mm hex wrench, remove all modules to be replaced.
2. Using a 2.5-mm hex wrench, remove all solenoid valves and heat isolation gaskets.
3. Thoroughly clean the all of the module and solenoid valve mounting surfaces. Take care not to get debris in any module or solenoid valve porting. If this does occur, take corrective action to remove the debris (using a vacuum or compressed air). Visually inspect the porting to ensure that the passageways are clear before proceeding.
Install the New UM3 Modules

1. See Figure 2. Using a 3-mm hex wrench, install the new UM3 modules with flange-mounted solenoid valves (1) on the applicator using the supplied 4-mm screws.

2. Using a 2.5-mm hex wrench, position the new solenoid valve diverter plates and gaskets (2, 3) for the modules as shown in Figure 2 and secure these parts using the supplied 3-mm screws. Tighten the screws to 1.9–2.5 N·m (17–22 in.-lbs).

![Figure 2 Flange-mounted solenoid valve components](image)

- 1. UM3 module with flange-mounted solenoid valve
- 2. Solenoid valve diverter plate
- 3. Gasket

3. Return the air supply to the solenoid valves to the on position.
   
   **NOTE:** This should be set between 5.2–5.9 bar (75–85 psi).

4. Check for air leaks and correct them before proceeding.

5. Close the drain valve and restore the system to normal operation.
Parts

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

Replacement UM3 Module Part Numbers for Non-UM3 Modules

<table>
<thead>
<tr>
<th>Non-UM3 Module Type</th>
<th>Non-UM3 Module Part Number</th>
<th>UM3 Module Part Number for Standard-Speed Replacement</th>
<th>UM3 Module Part Number for High-Speed Replacement</th>
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<tbody>
<tr>
<td>Universal spray module, 3-way, manifold-mounted solenoid valve</td>
<td>1023499</td>
<td>1082269</td>
<td>1050136</td>
</tr>
<tr>
<td>Universal coating module, 3-way, manifold-mounted solenoid valve</td>
<td>1023197</td>
<td>1082267</td>
<td>1055208</td>
</tr>
<tr>
<td>Controlled Fiberization (CF) only module, 3-way, non-snuffback, manifold-mounted</td>
<td>321433</td>
<td>1082269 (See Note)</td>
<td>1050136 (See Note)</td>
</tr>
<tr>
<td>solenoid valve</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: A CF adapter and CF nozzle or a Universal CF nozzle will be required to achieve full CF compatibility.

Figure 3 Non-UM3 modules (left) and UM3 modules (right)
Solenoid Valve Diverter Plate Assembly

See Figure 4. This is assembly is required if you want to convert from manifold-mounted solenoid valves to flange-mounted solenoid valves.

<table>
<thead>
<tr>
<th>Item</th>
<th>Part</th>
<th>Description</th>
<th>Quantity</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>—</td>
<td>1050296</td>
<td>Solenoid diverter plate assembly</td>
<td>AR</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1050295</td>
<td>• Plate, solenoid input diverter</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1050298</td>
<td>• Gasket, solenoid diverter plate</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>982611</td>
<td>• Screw, socket, M3.0.5 x 18</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

AR: As Required

Figure 4  Solenoid valve diverter plate assembly parts

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