

PR70™ Solenoid Valve Upgrade Kit FCM1

3A5052A

EN

For replacing the air cylinder solenoid valve on all PR70 fixed or variable ratio systems using fluid control module 288763 that meter, mix, and dispense two-component materials. For professional use only.

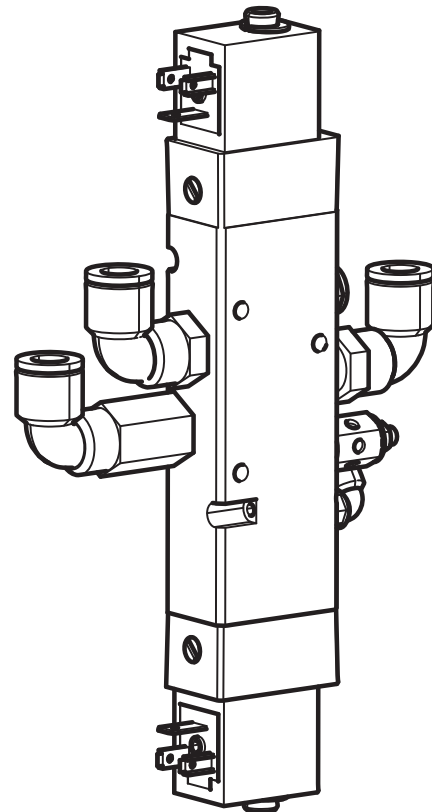
Part No. 24Z939

100 psi (0.7 MPa, 7 bar) Maximum Air Inlet Pressure



Important Safety Instructions

Read all warnings and instructions in this manual and in PR70™ and PR70v™ with Advanced Display Module Operation and Maintenance Manual 312759. Save all instructions.



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Related Manuals

PR70 Operation and Parts Manuals	
Part	Description
312760	PR70 and PR70v™ Repair and Parts Manual
312394	PR70 and PR70v Feed Systems Manual
312761	PR70v Integrated Heat Instructions - Parts Manual

Overview

These instructions are for upgrading the air cylinder solenoid valve on all models of PR70 fixed or variable ratio systems using fluid control module 288763. The new solenoid valve, part #17K155, included in this kit replaces part #120899. This kit 24Z939 should be ordered if part #120899 fails and needs to be replaced.

Important features of this upgrade kit include:

- It retains the existing dispense valve.
- The solenoid valve and dispense valve are mounted to the air cylinder vertically instead of horizontally.
- The cable harness included in the kit now has 4 cables instead of 3. The retract and extend signals have been split into separate cables. They were combined into one cable previously.

Contact Graco Ohio Technical Assistance at 800-746-1339 or OhioTA@graco.com for additional information or assistance with this upgrade kit.

Kit 24Z939 Parts

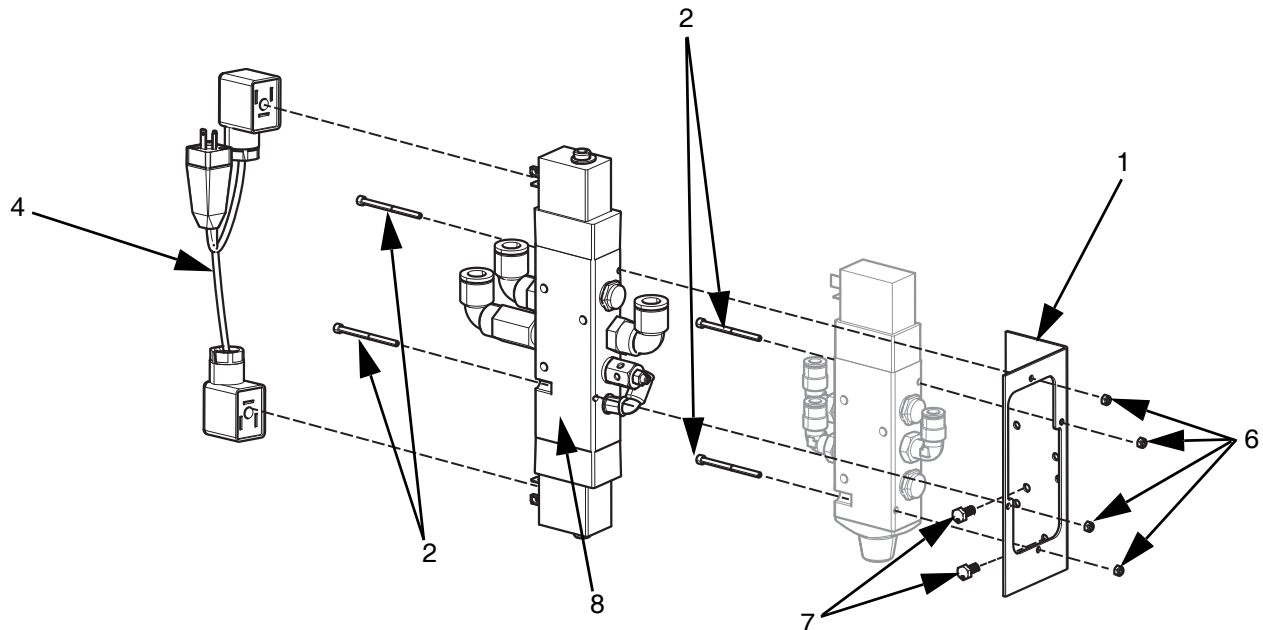






FIG. 1: Parts in Valve Upgrade Kit 24Z939

Ref	Part	Description	Quantity
1	17D916	BRACKET, shelf	1
2	128266	SCREW, cap, socket head, 4-40	4
4	17E464	CABLE, pr70	1
5	61/2906-BK/11*	HOSE, .245 id x .375 od, pu, 95 dur	2 ft
6	C27076	NUT	4
7	128170	SCREW, hex, head, m4 x .7 x 10 mm	2
8	17K155	VALVE, solenoid, 3 way	1

* Not Shown.

Installation





 WARNING				
				
<p>TOXIC FLUID OR FUMES HAZARD Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.</p> <p>MOVING PARTS HAZARD Moving parts can pinch, cut or amputate fingers, and other body parts.</p> <p>PERSONAL PROTECTIVE EQUIPMENT Wear appropriate equipment when in the work area to help prevent serious injury.</p>				


Shutdown



Perform the following steps to shut down the machine before proceeding with the installation of this upgrade kit.

1. Place a waste container below the dispense valve.
2. Perform the **Pressure Relief Procedure** to relieve pressure to the PR70.
3. Unplug the power cord.

Pressure Relief Procedure

 WARNING				
				
<p>The PR70 equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from toxic fumes and moving parts, follow the Pressure Relief Procedure before servicing or making repairs to the PR70.</p>				

1. At the Home screen on the Advanced Display Module (ADM), press  to access Setup mode. Use the directional keypad to navigate to the Manual screen.

2. Press the Open Dispense Valve  key on the Manual screen to relieve chemical pressure.
3. Press the Machine Disable Mode  key.
4. Press down the system air pressure relief switch to stop the air supply and to vent air pressure in the machine. It is the yellow tab at the left, rear of the PR70. The hole in the tab should be visible.
5. If necessary, run a lock through the hole to lock the tab in place. This prevents the system air pressure from being inadvertently enabled.

Access the Valve Assembly

1. Turn the shield locking screws counterclockwise on both sides to remove the screws.

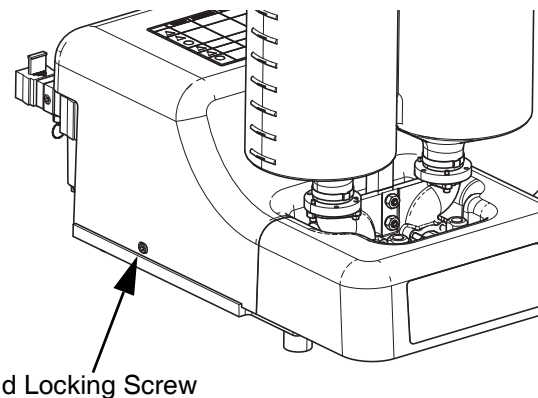


FIG. 2: Removing the Shield

2. Remove the protective shield.

NOTE: The solenoid valve assembly is located at the rear of the PR70, and the Fluid Control Module (FCM) is located above it.

Replace the Solenoid Valve

1. Remove the three socket head screws holding the air cylinder solenoid valve and the dispense solenoid valve.
2. Remove the two valves from the cylinder end block.
3. Disconnect all air line tubes from the air cylinder solenoid valve.
4. At the dispense solenoid valve, disconnect only the 1/4 in. air line tube from the air manifold as shown in Figure 3.

NOTICE

Do NOT disconnect the two 1/4 inch air lines at the dispense solenoid valve that open and close the dispense valve. Reconnecting these air lines incorrectly could damage the machine.

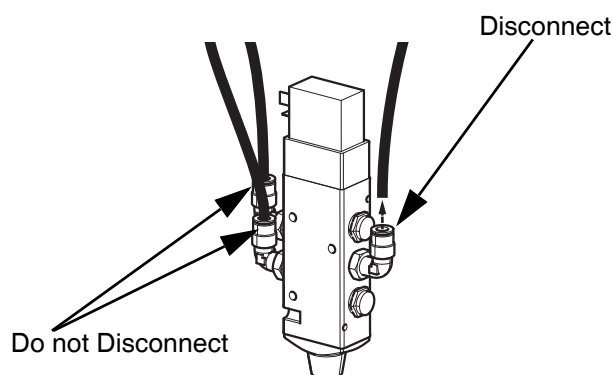


FIG. 3: Dispense Solenoid Valve

5. The cable harness running from the FCM has three cables. Disconnect the two 3-pin square cables from both valves using a Phillips screwdriver to loosen the screws before removing the connectors.
6. Disconnect the third cable from the Linear Variable Differential Transformer (LVDT) cable.

NOTE: Discard the air cylinder solenoid valve as the new valve (part #17K155) replaces it. The original dispense solenoid valve will be installed along with the new air cylinder solenoid valve.

NOTE: The air cylinder solenoid valve and dispense solenoid valve need to be installed vertically instead of horizontally on the cylinder end block. This requires the use of the bracket (part #17D916) included in the valve replacement kit.

7. Use the two hex screws (part# 128170) included with the kit to attach the bracket to the air cylinder end block as shown in Figure 4.

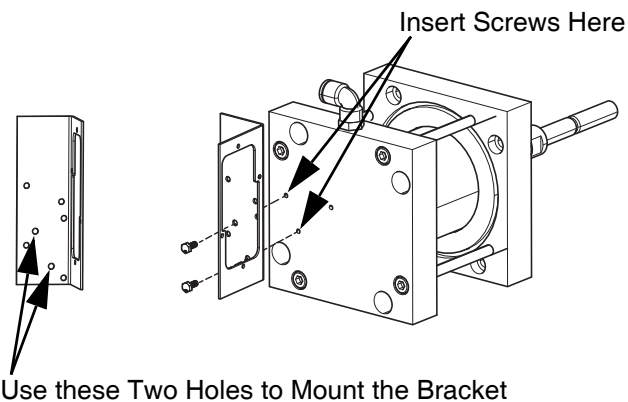


FIG. 4: Attaching the Bracket

NOTE: After the bracket is attached to the air cylinder, the valves are attached to the bracket. The dispense solenoid valve that was removed is again placed on the inside and the new air cylinder solenoid valve is on the outside.

8. As shown in Figure 5, attach both valves to the bracket using the four socket head screws (part #128266) and nuts (part #C27076) included in the kit. For an additional view of the orientation of the valves, see Figure 1 on page 3.

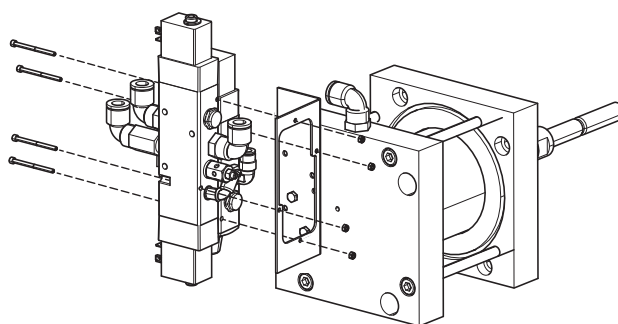


FIG. 5: Attaching the Valves to the Bracket

9. Cut the air line tubing (part #61/2906-BK/11) included in the kit to the appropriate lengths to make the retract and extend air cylinder connections. Refer to Figure 6 below.
10. Connect the air line tubing from the air cylinder retract elbow fitting to the solenoid valve retract elbow fitting.

Installation

11. Connect the air line tubing from the air cylinder extend elbow fitting to the solenoid valve extend elbow fitting.

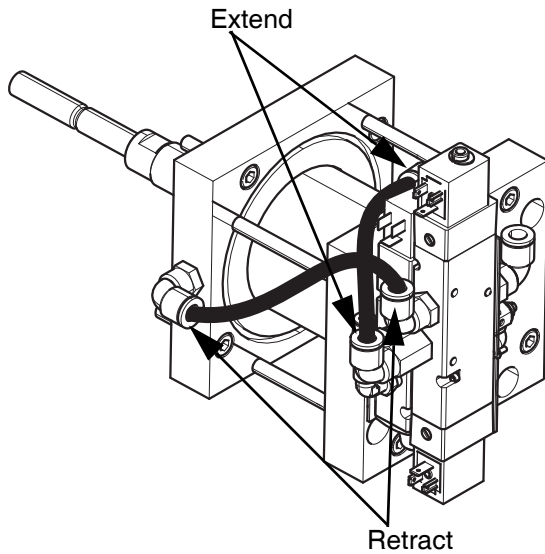


FIG. 6: Attaching the Air Line Tubing

12. Reconnect all other air lines to the dispense solenoid valve and the air cylinder solenoid valve.
13. Connect the harness.
14. Connect the harness adapter to the air cylinder solenoid valve connector.
15. Connect the Extend and Retract connectors to the new solenoid valve.

Graco Information

Sealant and Adhesive Dispensing Equipment

For the latest information about Graco products, visit www.graco.com.

For patent information, see www.graco.com/patents.

TO PLACE AN ORDER, contact your Graco distributor, go to www.graco.com and select “Where to Buy” in the top blue bar, or call to find the nearest distributor.

If calling from the US: 800-746-1334

If calling from outside the US: 0-1-330-966-3000

*All written and visual data contained in this document reflects the latest product information available at the time of publication.
Graco reserves the right to make changes at any time without notice.*

Original instructions. This manual contains English. MM 3A5052

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Revision A, May 2017