



**Pneumatic Division**  
Richland, Michigan 49083

**Installation & Service Instructions**  
**V691P**

**DX0 ISO 15407-1 Valve Installation**

**ISSUED: January, 2004**

**Supersedes: None**

**Doc.# V-691P, NPR# 030987**

**⚠ WARNING**

To avoid unpredictable system behavior that can cause personal injury and property damage:

- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer's specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

**Application Limits**

These products are intended for use in general purpose compressed air systems only.

**Piloting Pressure:**

2 to 10 bar (29 to 145 PSIG)

**Operating Pressure:**

-0.9 to 10 bar (13 to 145 PSIG) (For pressure under 2 bar, external pilot supply must be connected.)

**Ambient Temperature Range:**

-10°C to 60°C (14°F to 140°F)

**Voltage Range:**

Rated Voltage +10%, -15%

**⚠ CAUTION: Solenoid versions of this valve contain solid state components that can be damaged by transient voltage spikes, over-voltage or high temperature. To protect against premature solenoid failure, please read and adhere to the following:**

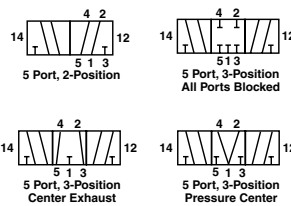
If this solenoid operated valve is used in a circuit with other inductive loads. The solenoid should be electrically protected with a voltage suppression device (e.g. transient voltage suppressor or varistor) that has a minimum rating of 1.6 times the rated voltage of the solenoid valve and sufficient capacity to dissipate the energy of other inductive loads.

**Introduction**

Follow these instructions when installing, operating, or servicing the product.

**Port Identification / Connections / Symbols**

Port No.	Single Pressure	Dual Pressure
1	Inlet	Exhaust
2	Outlet	Outlet
3	Exhaust	Inlet
4	Outlet	Outlet
5	Exhaust	Inlet
12, 14	Pilot ports for External Pilot or Remote Pilot	



Valves may be used for single outlet (3-Way) by plugging an outlet port.

**NOTE:** The operator identification describes the ports that are connected when the operator is energized: operator 12 connects port 1 to port 2; operator 14 connects port 1 to port 4. Other ports may also be connected, or blocked – see symbols on the valve.

**NOTE:** For dual pressure, the higher pressure is to be at port 3 for single air operated valves. Solenoid types may have the highest pressure at either port 3 or 5, as specified.

**⚠ CAUTION: It is recommended that double solenoid and double remote air pilot operated 2-Position valves be mounted so that the axis of the valve spool is in the horizontal plane.**

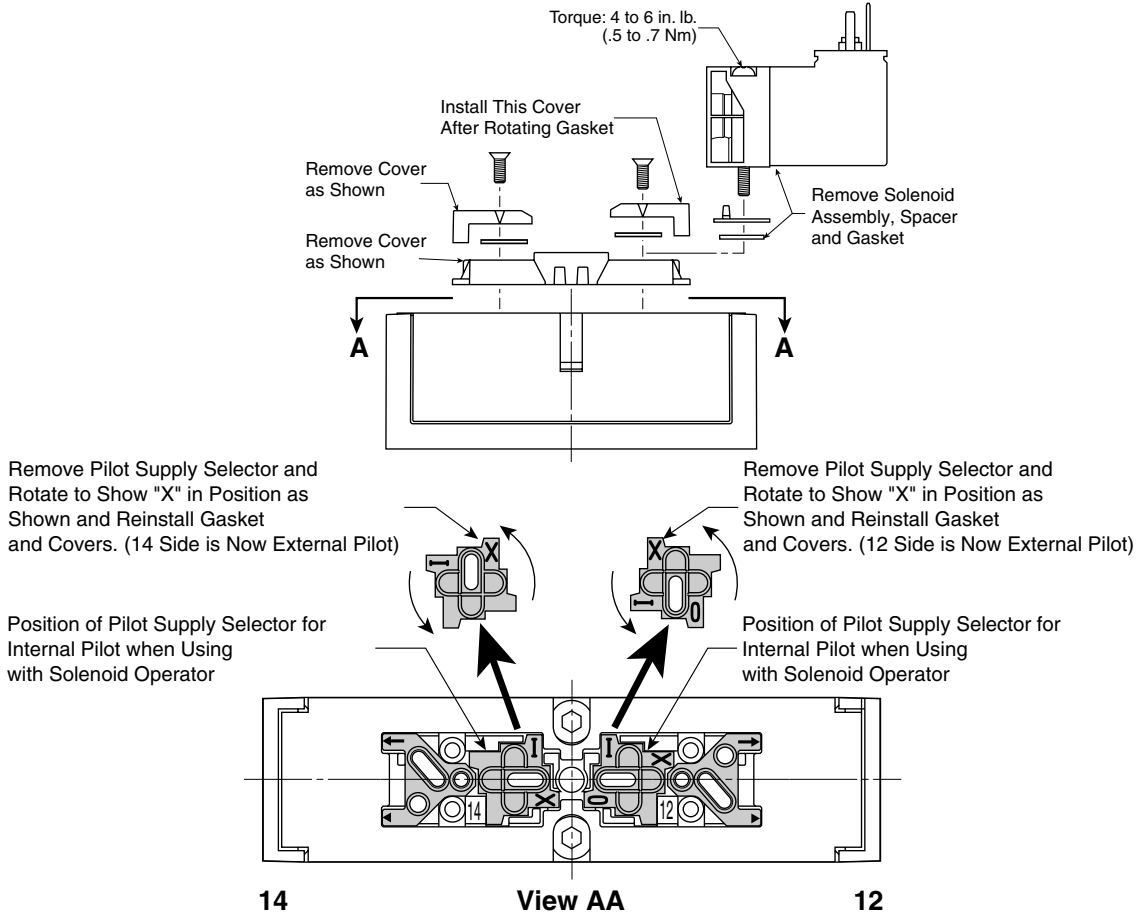
**⚠ WARNING**

**FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.**

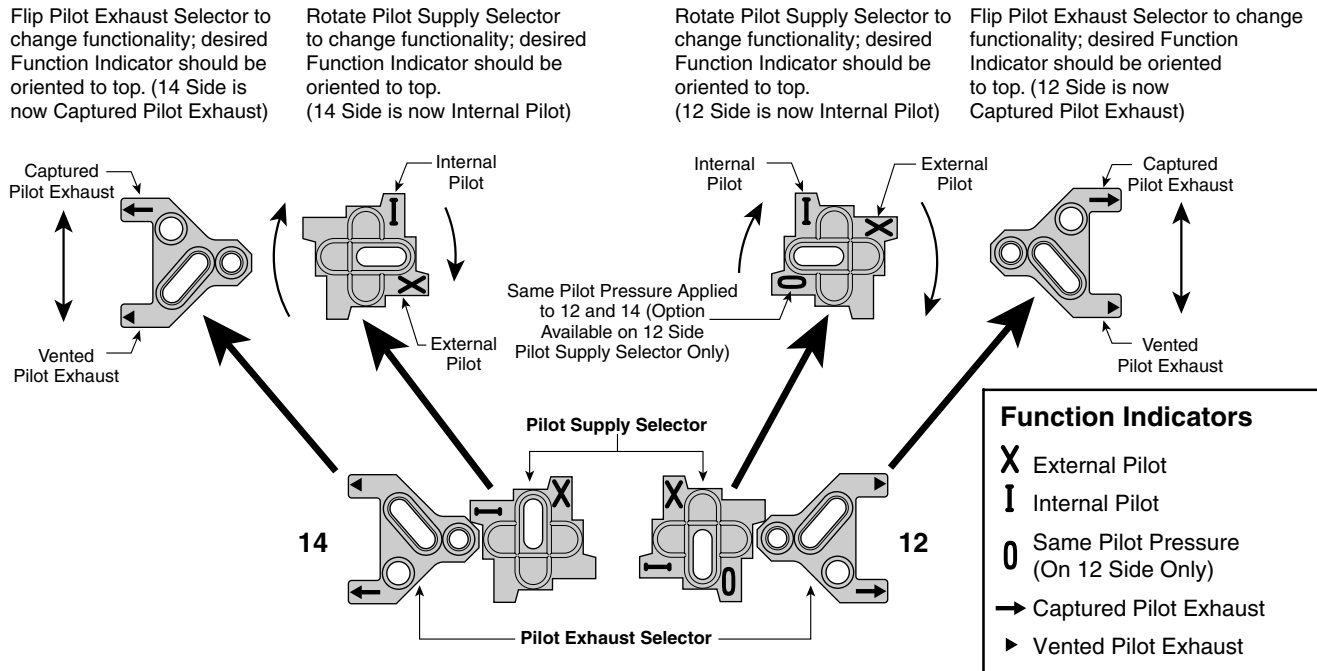
This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

**Example: To Change from Internal to External Pilot Supply**



**Example: To Change from External Pilot Supply, Vented Pilot Exhaust to Internal Pilot Supply, Captured Pilot Exhaust**



**Manifold Conversion Instructions**

**PJL01, Size 01**

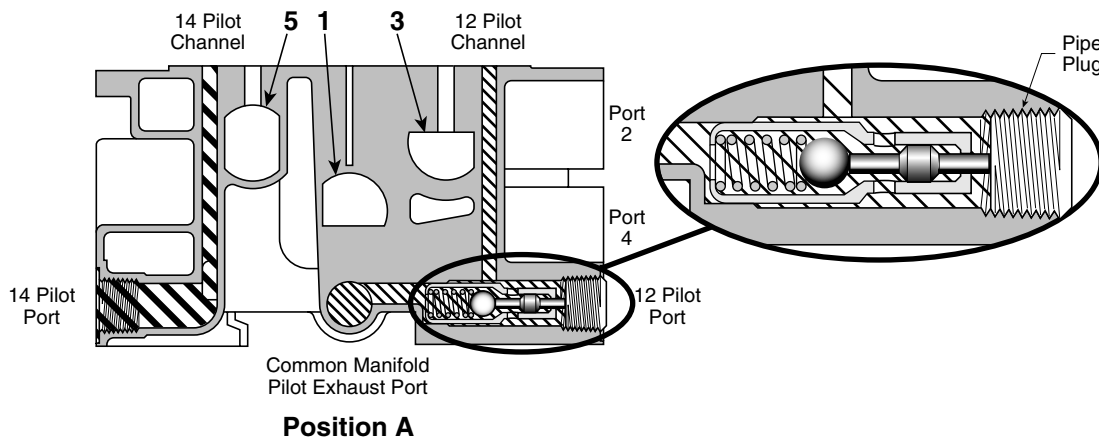
A Built-in 2-Position Selector converts the External Pilot Channel (12) into a Common Solenoid Pilot Exhaust Channel.

**Position A**

When in place, the Plug depresses the Selector to connect the Valve Solenoid Pilot Exhaust to a Common Manifold Exhaust Port.

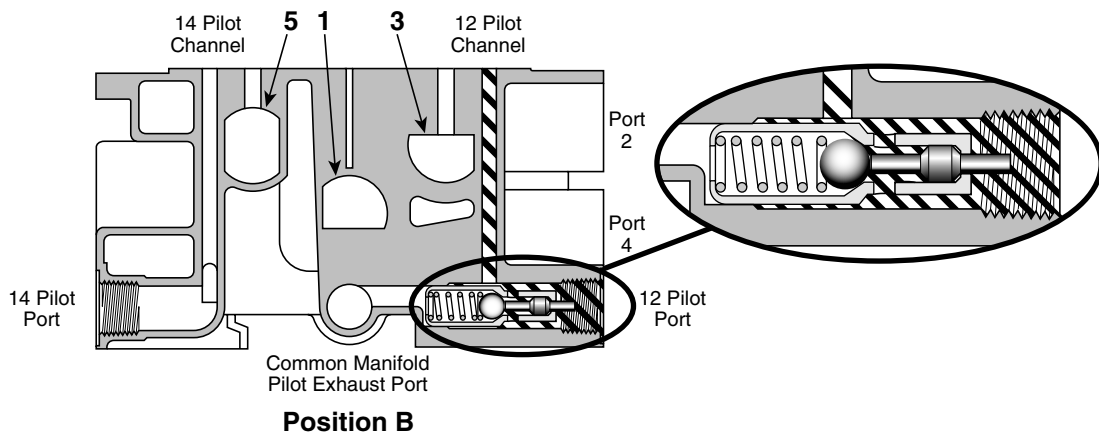
**Ports**

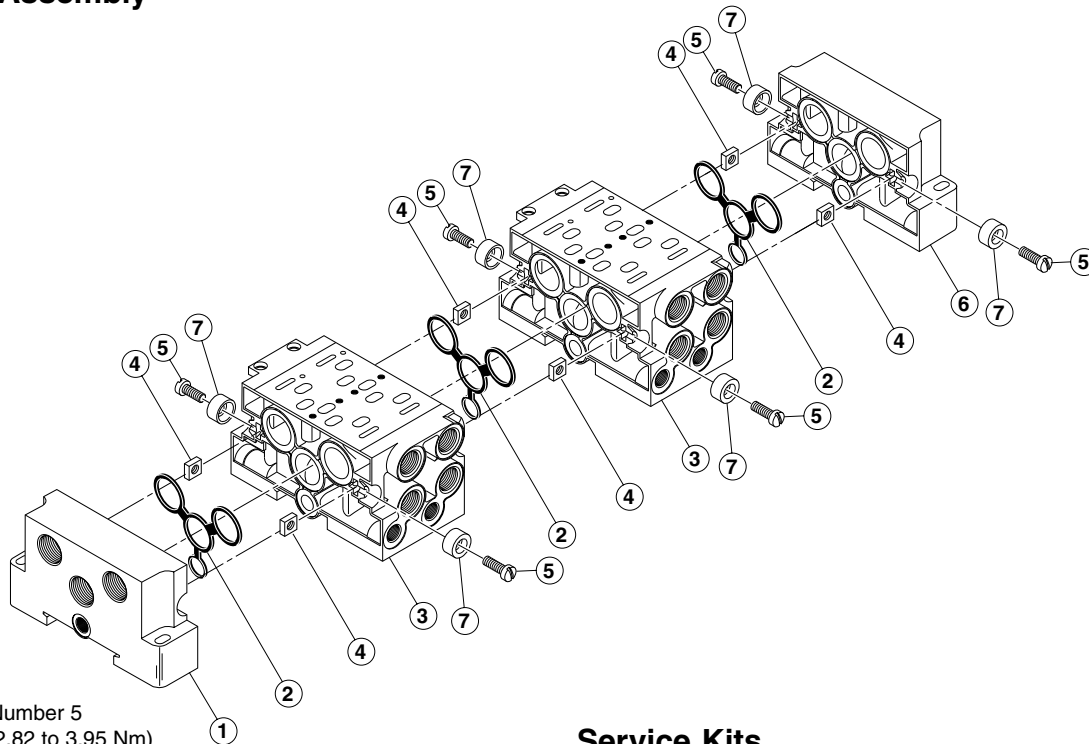
- 1 ..... Pressure
- 2 ..... #2 Cylinder Port. 1 to 2 Flow Path.
- 3 ..... Cylinder Exhaust Port. 2 to 3 Flow Path.
- 4 ..... #4 Cylinder Port. 1 to 4 Flow Path.
- 5 ..... Cylinder Exhaust Port. 4 to 5 Flow Path.
- 14 ..... #14 Pilot Port
- 12 ..... #12 Pilot Port



**Position B**

With no Plug or a fitting in place, free flow between Port 12 and the valve provides Remote External Pilot Pressure.





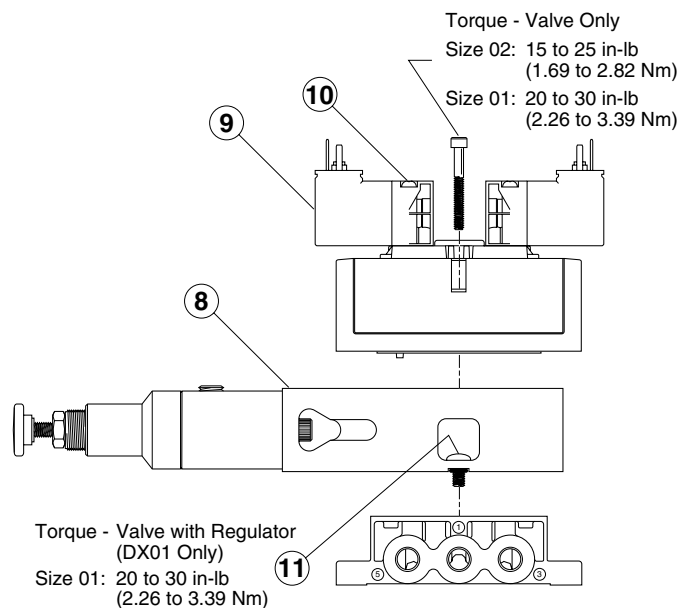
Torque - Item Number 5  
25 to 35 in-lb (2.82 to 3.95 Nm)

Item Number	Description
1	Left End Plate
2	Gasket
3	Manifold
4	Retaining Nut
5	Screw
6	Right End Plate
7	Washer
8	Sandwich Regulator
9	Solenoid
10	Solenoid Screw
11	Sandwich Regulator Bolt

**Service Kits**

Kit Number	Description	Items Included (Qty)
PEJ02-02-80	18mm End Plate Kit, 1/8" NPT	1 (1), 2 (1), 4 (2)
PEJ02-02-70	18mm End Plate Kit, 1/8" BSPP	5 (2), 6 (1), 7 (2)
PEJ01-03-80	26mm End Plate Kit, 1/4" NPT	
D02P-01-80	26mm Intermediate Air Supply Base Kit, 1/4" NPT	Not Shown
SFR01DX	Size 01 Sandwich Regulator Kit	8 (1), 11 (2)
D02BD0	18mm Manifold Port Isolation Disc Kit	Not Shown (3 per Kit)
D01BD0	26mm Manifold Port Isolation Disc Kit	Not Shown (3 per Kit)
DX02BLK	18mm Blanking Plate Kit	Not Shown
DX01BLK	26mm Blanking Plate Kit	Not Shown
DX02M2MB	Manifold to Manifold Bolt Kit	4 (10), 5 (10), 7 (10)
PS2982B49P	24VDC, 15mm, 3-Pin, DIN 43650C, Non-Locking Replacement Solenoid Kit	9 (1), 10 (2)
PS2982C49P	24VDC, 15mm, 3-Pin, DIN 43650C, Locking Replacement Solenoid Kit	9 (1), 10 (2)
PS2982B53P	110/50, 120/60, 15mm, 3-Pin, DIN 43650C, Non-Locking, Replacement Solenoid Kit	9 (1), 10 (2)
PS2982C53P	110/50, 120/60, 15mm, 3-Pin, DIN 43650C, Locking, Replacement Solenoid Kit	9 (1), 10 (2)

**Sandwich Regulator Assembly**



**Manifold to Manifold Assembly**

1. Lay Right End Plate (when looking at Cylinder Ports) Port Side down.
2. Place Gasket in gasket track and Retaining Nut in slot.
3. Place Manifold on top and tighten using Screw and Washer (both sides).
4. Repeat Steps 2 and 3 until all manifold slices are assembled.
5. Attach Left End Plate.
6. Lay Manifold on flat surface and check for straightness. Tighten all bolts per torque specifications.