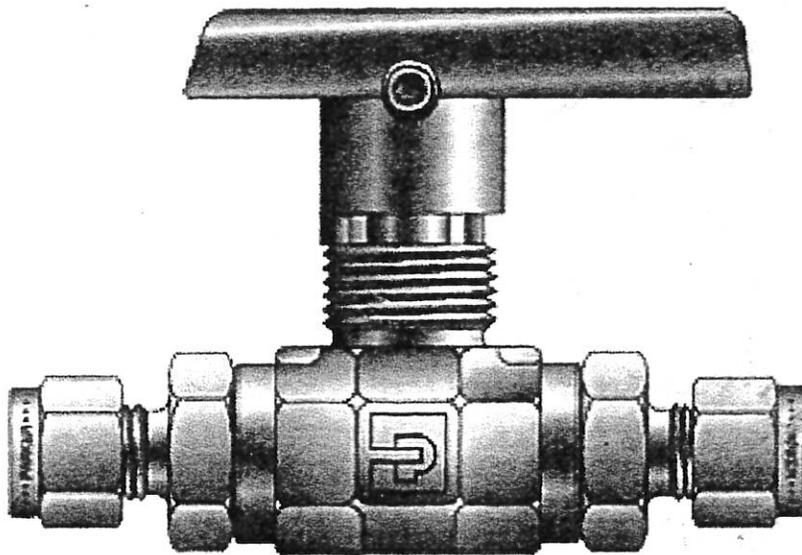


PARKER
B Series Manual Ball Valve
Installation Instructions
INI-208



INSTALLATION OF PANEL MOUNTED VALVES

Ball Valve Size	Panel Thickness (max)	Through-Hole Diameter
B2	1/8 inch (3.2 mm)	37/64 inch (14.7 mm)
B6	1/4 inch (6.4 mm)	49/64 inch (19.5 mm)
B8	3/8 inch (9.4 mm)	57/64 (22.6 mm)

When the valve is mounted to a thin panel, a spacer (or washer) may be necessary to permit full Panel Nut engagement on the valve.

1. Remove the Handle by turning the Set Screw counter-clockwise with the following size hex-socket wrench:
 - B2 Series valves 5/64 inch
 - B6 Series valves 3/32 inch
 - B8 Series valves 1/8 inch
2. Insert the Valve through the panel hole and assemble the Panel Nut. Snug the Panel Nut finger-tight, followed by proper tightening.
3. Adjust the Stem packing as explained below, and re-install the Handle.

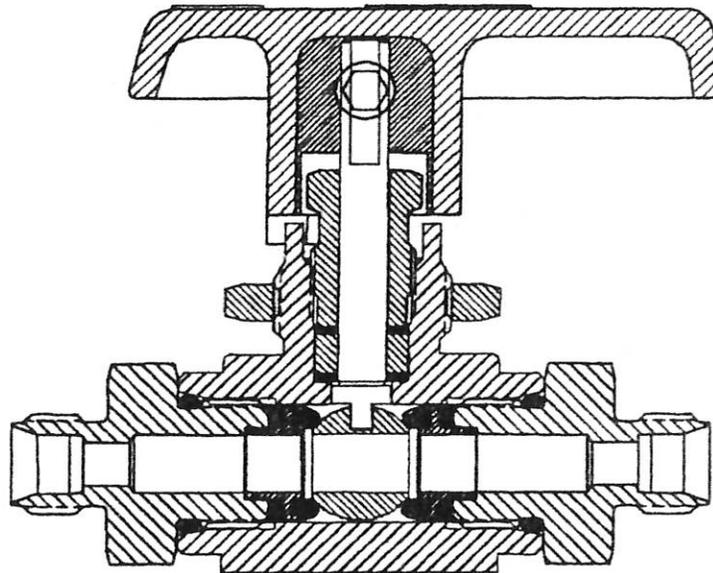


Figure 1 - Two-Way Ball Valve Cross-Sectional Assembly with PTFE Packing

PACKING ADJUSTMENT

(For B Series Ball Valves with PTFE Stem Packing)

Packing adjustment may be occasionally necessary depending on the many and varied uses for the valve. It is recommended an adjustment be made shortly after initial installation and just prior to flow start-up. Always consult your authorized Parker representative if questions arise.

1. Remove the Handle by turning the Set Screw counter-clockwise with the following size hex-socket wrench:

B2 Series valves	5/64 inch
B6 Series valves	3/32 inch
B8 Series valves	1/8 inch

2. Tighten the Packing Nut 1/8 to 1/4 turn or to the following torque using the specified hex wrench size.

Ball Valve Size	Hex Wrench Size	Tightening Torque
B2	5/16 inch	30 In-lbs (3.3 N-m)
B6	7/16 inch	70 In-lbs (7.8 N-m)
B8	1/2 inch	90 In-lbs (10 N-m)

3. Re-install the Handle and secure by turning the Set-Screw clockwise and torque to 20, 30, or 75 In-lbs, for the B2, B6, and B8 respectively.

PACKING ADJUSTMENT

(For B Series Ball Valves with O-Ring Stem Seals)

Packing adjustment may **not be** performed on valves with O-Ring stem seals. The Packing Nut is adhesively fixed in the Valve Body.

PACKING ADJUSTMENT

(For B Series Ball Valves with Live Loaded Packing)

Packing adjustment should not be required. If necessary, an adjustment may be made by following the above instructions for valves with PTFE Stem Packing.

VALVE CONNECTOR MAKE-UP INSTRUCTIONS

CAUTION: Whenever installing or removing a Ball Valve from a system, always place a back-up wrench on the Ball Valve's End Connector - NOT the Valve Body.

PLEASE REQUEST A COPY OF PARKER B SERIES MANUAL BALL VALVE MAINTENACE INSTRUCTIONS (MI-108) WHEN VALVE DISASSEMBLY IS REQUIRED.

MALE AND FEMALE PIPE PORTS

1. On the male threaded part of the connection, apply a high quality pipe joint compound or PTFE tape made for this purpose. When PTFE tape is used, it is recommended two full turns of tape be applied. PTFE tape should not be overhanging or covering the first thread.
2. Engage the Valve and the other component part together, until hand-tight.
3. With a proper wrench, holding both the Valve and the component part, continue to tighten to achieve a leak-tight joint.

WELDED PORT CONNECTIONS

For Parker Automatic Mini-Butt Weld (ABW) Fittings Only

Always consult your authorized Parker representative if questions arise. Careful welding procedures are recommended and welding should be performed by trained, qualified personnel. Socket weld ports require the tube be inserted into the socket until bottomed against the stop. The tube is then to be backed out approximately 1/16 of an inch and then welded. This procedure will help in avoiding excessive static stress on the weld.

It is recommended all Valves with socket weld or butt-weld ports be disassembled prior to welding. To prevent potential damage to the Valve Seat (if the Valve is not disassembled), place the Valve in the full open position and properly purge with gas.

TUBE FITTING CONNECTIONS

1. Insert the tube into the Valve port until the tube bottoms out in the Valve Body. Care should be exercised to insure the tube is properly aligned with the Valve Body and port.
2. Normal make-up for US Customary port sizes 1 thru 3 (1/16 thru 3/16 inch) and SI port sizes 2 thru 4 (2 thru 4 mm) is 3/4 turn from finger tight. Normal make-up for US Customary port sizes 4 thru 16 (1/4 inch thru 1 inch) and SI port sizes 5 thru 25 (5 thru 25 mm) is 1 1/4 turn from finger tight. For larger port sizes, consult Parker Ferrule Presetting Tool Instructions.

PLEASE FOLLOW THE ABOVE DIRECTIONS FOR COUNTING THE NUMBER OF TURNS FOR PROPER FITTING MAKE-UP. DO NOT MAKE-UP TUBE FITTINGS BY TORQUE OR "FEEL". VARIABLES SUCH AS TUBING AND FITTING TOLERANCES, TUBE WALL THICKNESS, AND THE LUBRICITY OF NUT LUBRICANTS CAN RESULT IN AN IMPROPERLY ASSEMBLED TUBE FITTING CONNECTION.

ULTRASEAL CONNECTIONS

1. Insert the proper O-Ring into the UltraSeal fitting's O-Ring groove. Position the UltraSeal gland sealing face against the O-Ring, and then advance the Nut to a finger-tight position.
2. A positive seal is obtained by advancing the Nut no less than 1/4 turn from the finger-tight position. Proper UltraSeal make-up is achieved when a sharp rise in required application torque occurs, which indicates proper seal face contact and O-Ring seal compression into the UltraSeal groove.

VACUSEAL CONNECTIONS

1. A positive seal is obtained by advancing the Nut 1/8 turn from the finger-tight position.
2. A new gasket should be installed upon each fitting remake to insure system pressure integrity.

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 applications and review the information concerning the product or system 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.

ALL PARKER VALVES MUST PASS A RIGID OPERATIONAL AND LEAKAGE TEST BEFORE LEAVING THE FACTORY. IT IS RECOMMENDED AFTER ANY REASSEMBLY, THE VALVE SHOULD BE TESTED BY THE USER FOR OPERATION AND LEAKAGE. IF THESE INSTRUCTIONS ARE NOT FULLY COMPLIED WITH, THE REPAIRED PRODUCT MAY FAIL AND CAUSE DAMAGE TO PROPERTY OR INJURY TO PERSONS. PARKER HANNIFIN CANNOT ASSUME RESPONSIBILITY FOR PERFORMANCE OF A CUSTOMER SERVICED VALVE.

Maximum Allowable Working Pressure and Temperature

NOTE: Please refer to the B Series product literature for limitations on pressure when using Three-way Ball Valves.

Valve Body Material		
Seat Material	Brass	Stainless Steel
PTFE	1500 psig @ 70°F	1500 psig at 70°F
	10.40 MPa @ 21°C	10.40 MPa at 21°C
PCTFE	3000 psig @ 70°F	6000 psig @ 70°F
	20.70 MPa @ 21°C	41.40 MPa @ 21 °C
PEEK	3000 psig @ 70°F	6000 psig @ 70°F
	20.70 MPa @ 21°C	41.40 MPa @ 21 °C

Refer to Parker B Series Manual Ball Valve Maintenance Instructions (MI-108) when valve disassembly is required. The arrow on the Valve Handle may be used to indicate the normal direction of flow.

Three-way Ball Valves are designed exclusively for directional flow control. Three-way Ball Valves are not recommended for shutoff service. Always consult your authorized Parker representative if questions arise.

Parker Hannifin Corporation
Instrumentation Products Division
2651 Alabama Highway 21 North
Jacksonville, Alabama 36265-9681
Phone (256) 435-2130
Fax (256) 435-7718

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