WARRANTY AND DISCLAIMER: We warrant Akron Brass products for a period of five (5) years after purchase against defects in materials or workmanship. Akron Brass will repair or replace product which fails to satisfy the warranty. Defective products will be returned for warranty service. The warranty is void for products that have been altered, misused, improperly maintained, or subjected to deterioration due to wear and tear. Products not returned within 90 days of the date of purchase will be subject to the discretion of Akron Brass for warranty service. Products that are not returned within 90 days of the date of purchase for warranty service will be considered as having been disposed of and shall not be eligible for warranty service. Products returned for warranty service must be pre-authorized by Akron Brass. We will not be responsible for: wear and tear; any improper installation, use, maintenance or storage; negligence of the owner or user; repair or modification after delivery; damage; failure to follow our instructions or recommendations; but not limited to, any loss of profits) from any cause whatsoever. No person has authority to change this warranty.

PHONE: 330.264.5678 or 800.228.1161  I  FAX: 330.264.2944 or 800.531.7335  I  akronbrass.com

ISO 9001 REGISTERED COMPANY

© Akron Brass Company. 2011 All rights reserved. No portion of this can be reproduced without the express written consent of Akron Brass Company.
**REPAIR INSTRUCTIONS**

**DISASSEMBLY—BALL AND SEATS**

Note: This kit includes extra O-rings for the different variations of valve. Identify the correct replacement O-rings when removing the old ones.

1. Turn the valve to the open position.
2. If the valve can be rotated out of line, remove three pairs of adapter bolts (18) and loosen the fourth pair. Swing the valve out of the line. If the valve cannot be rotated out of line, remove all eight adapter bolts and take the valve out completely. **Note: If it is necessary to remove the handle, mark the position of the handle in relation to the ball position, and the orientation of the stop plate (4) if so equipped.**
3. Remove the two seats (20) from the valve body (21). It may be necessary to partially close the ball and grasp the inside lip of the seat.
4. Remove the threaded trunnion (16). If necessary, use fine emery paper to clean up the smooth portion that fits into the ball. The ball should fit loosely on the trunnion.
5. Rotate the handle so that the slot in the top of the ball is parallel to the waterway. Remove the ball (19).
DISASSEMBLY—HANDLE AND TOP TRUNNION(S)

Note: If the valve is equipped with an electric actuator, do not disassemble this portion of the valve. The water tight seal will be broken and water may leak into the electronic controls chamber. If the valve is equipped with a standard type handle, it is not normally necessary to replace the O-ring under the handle or on the ball trunnion. Do not disassemble this portion of the valve unless there is a leak.

1. Remove the handle bolt (1) and washer (2).
2. Note the position of the handle relative to the groove in the top of the trunnion for reassembly purposes. Remove the handle (3) and the stop plate (4), handle O-ring (6) and handle spacer (14) if so equipped.
3. If the valve includes a trunnion retaining plate (7), note the position for reassembly purposes. Remove the trunnion plate screws (5).
   
   Note: With flat head screws, one screw may be tighter than the others. Try to loosen all remaining screws before using excessive force on one. If the valve does not have a retaining plate, remove the trunnion (10) by pushing it into the valve body.
4. Remove the trunnion retaining plate (7). If this plate was secured with socket head screws, the handle trunnion (8) should remain in the plate.
5. Remove the handle trunnion (8), if separate.
6. Remove the the Tork-Lok® sleeve (13) and spring (9) subassembly if applicable.
   
   Caution: Do not remove the spring from inside the sleeve.
7. Remove the ball trunnion (10) by pushing it from the inside of the valve.

REASSEMBLY—HANDLE AND TOP TRUNNION(S)

Note: Lubricate all O-rings with Parker O-Ring Lube or equivalent petroleum-based lubricant.

1. Replace the O-ring (12) on the ball trunnion (10) and reinstall the trunnion in the valve body.
2. Replace the Tork-Lok sleeve (13) and spring (9) subassembly and handle trunnion (8) if so equipped.
   
   Note: The ears of the Tork-Lok spring must be aligned with the corresponding recess of the ball trunnion. The pilot shaft of the handle trunnion must fit into the hole in the center of the ball trunnion.
3. Reposition the trunnion retaining plate (7), if so equipped, and install the screws (5).
   
   Note: For Tork-Lok valves with flat head screws, tighten all six screws until they just touch the plate before fully tightening any one screw. Tighten them in a criss-cross pattern. There should be a small gap between the plate and the valve body.
4. Install the handle O-ring (6), style 7600 handle spacer (14), and stop plate (4) as required.
5. Position the handle in the proper position, apply a small amount of Locktite 222 or equivalent to the handle bolt (1) and install the bolt with the handle washer (2).
   
   Immediately test the operation of the handle. If it appears to be hard to turn, loosen the handle bolt approximately 1/4 turn.

REASSEMBLY—BALL AND SEATS

1. Install the new O-ring (15) on the threaded trunnion (16).
2. Use a 10" or larger flat file to clean up the flat surface of the adapters and mating surfaces of the valve body. Remove any paint, corrosion or raised lip around the bolt holes.
   
   Caution: Always file diagonally and keep the file touching both sides of the valve body. The surfaces must remain flat.
3. Rotate the handle so that the flats on the sides of the ball trunnion (10) are parallel to the waterway.
4. Install the new ball (19) over the ball trunnion and hold it in position.
   
   Note: The Metal Ball included with this kit is a direct replacement when repairing a valve with a plastic ball.
5. Install the threaded trunnion so that it fits into the hole in the ball. Tighten the trunnion.
6. Place the new seats into the recesses on either side of the valve body (21).
7. Swing the valve body back into line or install the assembly. Loosely install the adapter bolts.
8. Turn the ball to the closed position.
   
   Caution: The ball must be in the closed position before the adapter bolts are tightened.
9. Tighten the adapter bolts evenly in an X pattern using 215-240 inch pounds of torque.

DO NOT OVERTIGHTEN.

10. Operate the valve and test for leakage.

MAINTENANCE INSTRUCTIONS

Do not lubricate the ball or seats. Lubricants can collect dirt and grit which may cause excessive wear. Occasionally, flow water through all valves to clear dirt and debris.

OPERATING INSTRUCTIONS

Always open and close valves slowly.

Do not exceed 500 psi with 1½" valves. With SZ handles, always make sure that the handle has been tightened whenever the valve handle is released.

To ensure continued quality performance, use only AKRON replacement parts.