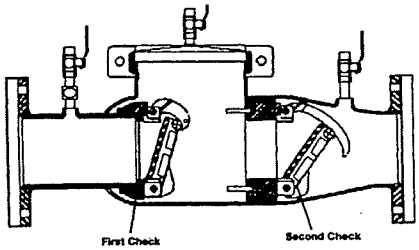
Removing Check Assemblies ***(Before servicing be certain shut off valves are closed)***

1. Slowly open all ball valves to relieve air and water pressure. Loosen bolts on groove coupler and remove groove coupler and cover plate from valve body.
2. Remove #1 Check assembly by using your hands to unscrew (turn counter-clockwise) Check and remove through top access port. Do not use Arm as a handle to unscrew. If Check can not be loosened by hand, insert a long screwdriver between valve body and Check **(see figure 3)**. Slowly apply pressure against the Check until loosened. Finish unscrewing by hand. Unscrew #2 Check (turn counter clock-wise) by placing a long screwdriver between lugs and applying pressure to loosen #2 Check. Finish unscrewing by hand.
3. To clean #1 Check, (6' and 8" only) locate the Check Arm open ing stud on the oulet flange of the valve assembly. Slide the Check Arm over the stud with the check threads facing down ward **(figure 1)**. Tighten 1/4" nut on stud to secure Check bar. Slowly pull the assembly outward to open check allowing exposure of the seat and clapper contact area for cleaning. To clean #2 Check, lift Check Arm and hold in open position. Raise clapper so that the end of the Check Arm rests between roller and clapper **(figure 2)**. Thoroughly clean the seat area and clapper sealing surfaces of both Checks. Inspect seats, clapper sealing surfaces, Check Arms, and O-rings for damage. If not damaged gently close the clapper. If damaged, install a new Check assembly and/or O-ring.
4. Before reinstallation of Checks thoroughly clean o-ring groove and lubricate o-ring w/FDA approved lubricant. Insert and thread #2 Check first and then #1 Check. #2 Check should be tightened by inserting a long screwdriver between lugs to tighten firmly. Do not over tighten. Tighten #1 Check firmly by hand only. Replace cover plate, clean groove coupler gasket and groove, replace groove coupler.



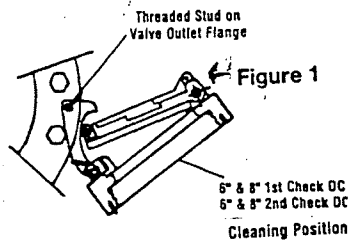
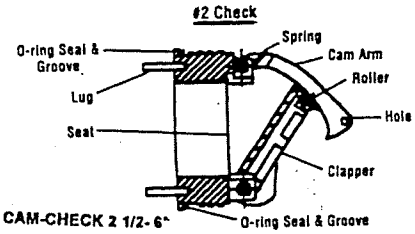


Figure 1



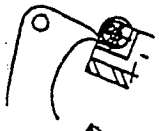
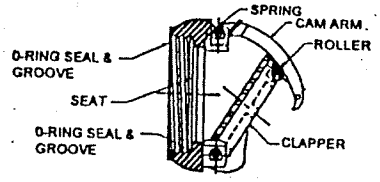


Figure 2



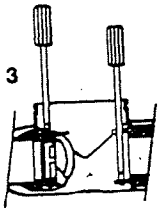
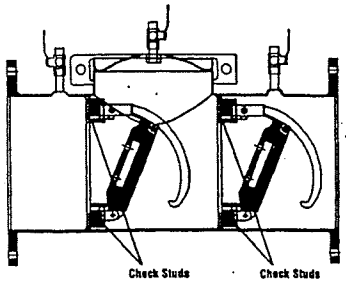
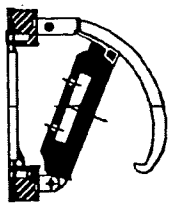


Figure 3



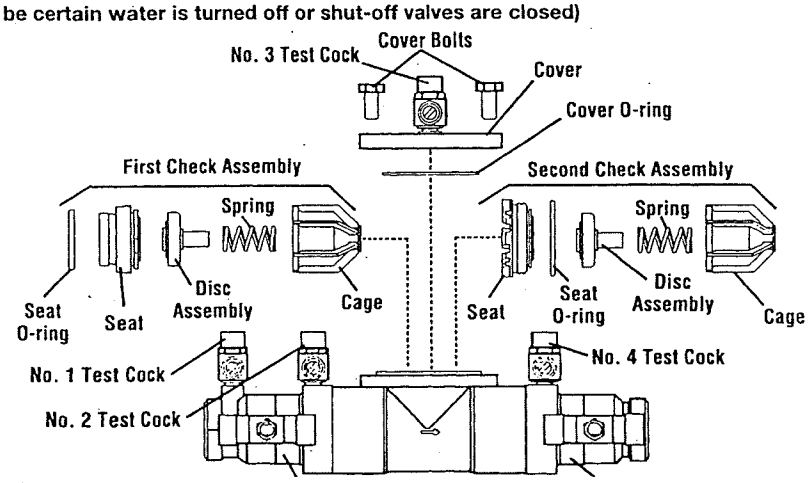


775 1/2 - 2"

Servicing the First and Second Check Valves:

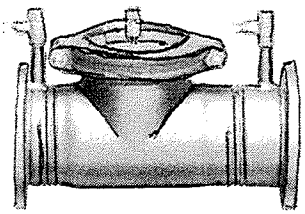
1. Close shutoff valves and open test cocks No. 2, 3 and 4 to relief pressure from the body of the valve. Loosen cover bolts and remove cover. The check valve modules can now be removed from the valve by hand or with a screwdriver. Note: The first and second check assemblies are not interchangeable and the first check assembly must be removed prior to removing the second check assembly.
2. The check seats are attached to the cage with a bayonet type locking arrangement. Holding the cage in one hand, push the seat inward and rotate counterclockwise against the cage. The seat, cage, spring and disc assembly are now individual components.
3. The disc assembly may now be cleaned and reassembled or, depending on its condition, it may be replaced with a new assembly from a repair kit. Seat O-rings should be inspected and replaced as necessary.
4. Reassemble the check module in the reverse order. Install the check modules into the valve body hand-tight. Replace the cover.

(Before servicing be certain water is turned off or shut-off valves are closed)



Series 775/775DCDA

Double Check Backflow Preventer
Double Check Detector Assemblies
Sizes: 3" - 8"



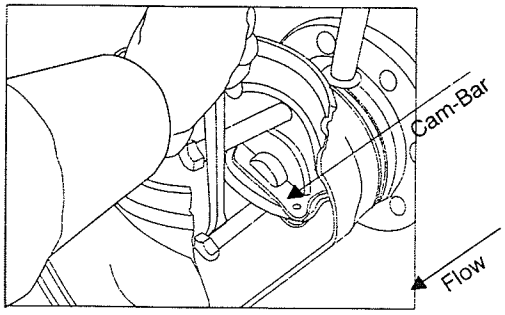
REMOVING CAM-CHECKS

Place yourself so that the water flow through the valve is left to right.

1. Shut down water system by closing two gate valves and lock out system if possible. Slowly open ball valves to relieve internal pressure. After pressure is relieved, loosen bolts on groove coupler and remove groove coupler and cover plate from valve body.

2. Unscrew (counter clockwise as viewed through the port facing the check) the #1 Cam-Check. Insert the two grooved coupler bolts into the holes in the face of the seat. Be sure that the pins or bolts are installed with one on each side of the cam bar as shown. Insert a long screwdriver or pry bar between opposing pins and loosen the check (counter clockwise) until it comes free to turn by hand. Finish unscrewing the Cam-Check by hand using the support ears for the clapper and cam bar to turn the check. (See fig #1A)

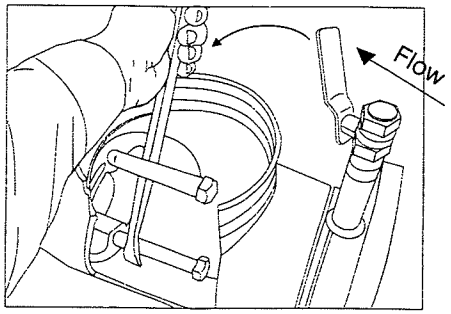
Figure #1A



3. Lift the Check straight up and out of the port access hole.

4. Using a pry bar across opposing pins in the #2 Cam-Check, loosen the #2 Cam-Check until it can be unscrewed by hand. Finish unscrewing the check by hand until it is free from the threads and spins out of the bore. (See fig. #1B). Remove #2 Cam-Check.

Figure #1B



5. Lift the Check straight up and out of the port access hole.

CAM-CHECK DISASSEMBLY

Please use caution when disassembling cam-check.

FIGURE 7

Using a thin rod or screwdriver, lift the cambar up so that the clapper is free to swing upwards away from the seat.

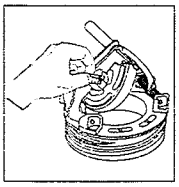


FIGURE 8

Using your free hand, swing the clapper open until the roller is almost to the free end of the cambar. Align the maintenance lockout holes in the cambar and the hinge arms.
Secure the check assembly in the maintenance position by inserting a rod or thin screwdriver through the lock-out holes.

FIGURE 9

Remove 1 c-clip from the center pivot pin. Withdraw the center pivot pin from the clapper and the hinge arms. Remove the clapper assembly from the check assembly module. Remove the retainer screws. **Note: You may replace this item as an assembly or you may continue and replace only the sealing disc.**

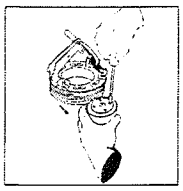
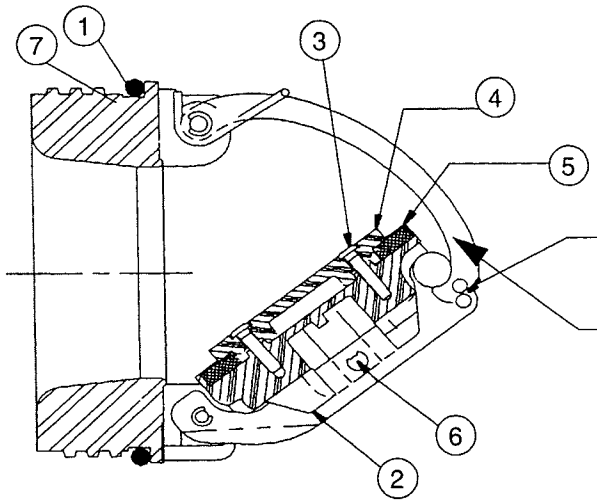


FIGURE 10

Disassemble the clapper by removing 4 screws, clapper retainer plate and the clapper disc. Disc may be reversed if sealing surface is damaged.

Before reinstallation of check assembly, thoroughly clean O-ring groove and lubricate O-ring with F.D.A. approved lubricant.



Note: Align holes and insert pin or small screwdriver to hold in open position.

Cam bar

Series 775/775DCDA

Double Check Backflow Preventer Double Check Detector Assemblies

Sizes: 3" - 8"

Item #	Part Description
1.	1st Cam-Check O-ring (removable)
2.	Clapper Assembly (removable)
3.	Clapper Retaining Plate Screws (removable)
4.	Clapper Retainer Plate (removable)
5.	Clapper Disc (removable)
6.	Pivot Arm Pin (removable) 2 c-clips
7.	2nd Cam Check O-ring (removable)

INSTALLING CAM CHECKS

Prior to installing the Cam-Checks, ensure that all threads are clean and free of debris, grit, or other particles. Thoroughly clean O-rings grooves and lubricate O-rings with an FDA approved Lubricant.

A) First Install the #2 Cam-Check:

1. Insert the #2 Cam-Check through the cover port with the clapper facing down. Align the threads of the #2 Cam-Check with the threads in the body and start to thread the Check in by hand.

2. Tighten the #2 Cam-Check. Insert grooved coupler bolts into the holes in the rear face of the seat . Insert a long screw driver or pry bar between opposing pins and tighten the check (clockwise as viewed through the port facing the check) until it comes to a solid stop. Then back the check out about 15 degrees or from the 1:00 to the 12:00 position. (See Fig #1C)

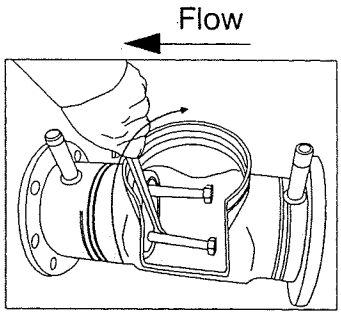


Figure #1C

B) Then Install the #1 Cam-Check:

1. Insert the #1 Cam-Check through the cover port with the clapper facing down. Align the threads of the #1 Cam-Check with the threads in the body and start to thread the Check in by hand - using the ears which extend from the seat ring to turn the check assembly. **DO NOT** use the clapper or the cam bar to turn the check assembly.

2. Tighten the #1 Cam-Check. Insert grooved coupler bolts into the holes in the face of the seat (or use the bolts from the lid groove coupler). Be sure that the pins or bolts are installed with one on each side of the cam bar. Insert a long screw driver or pry bar between opposing pins and tighten the check (clockwise as viewed through the port facing the check) until it comes to a solid stop. Then back the check out about 15 degrees or from the 1:00 position to the 12:00 position. (See Fig #1D)

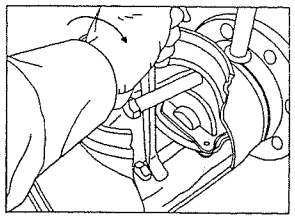


Figure #1D

START UP: After re-installation of the cover plate and groove coupler - the downstream shut off valve should be closed. Open upstream gate slowly, fill the valve and bleed the air through Test cocks 2, 3 and 4. When valve is filled, open the downstream shut off slowly. Failure to bleed air from assembly may cause water hammer or shock damage to the water system.

NOTE: Ames assemblies require minimum maintenance. All assemblies must be retested once maintenance has been performed. ***Before servicing be certain shut off valves are closed.***