

4000SS

2 1/2" - 10"



American Backflow
Products Company



Modification Overview

Production for the 4000SS began in 1990 and is current.



Single Access Cover Removal

Cover is secured by a grooved coupling.

Cover has no spring load.



Check Valve Removal

Check valve modules called “Cam Checks”.

Checks are o-ring sealed.

2 ½” - 6” Cam Checks are threaded into body.

1 check must be removed before # 2 can be removed.

8 - 10” Checks are simply bolted into body.



Check Valve Removal

2 ½" - 6" cam
checks unscrew
counterclockwise by
hand "if possible".

Do not use cam arm as
a handle to unscrew.



Check Valve Removal

2 ½" - 6" Cam Checks.

If too tight, place a drift punch or solid rod (long screwdriver) in one of the holes on the outer edge of the check module.

Tap with hammer in counterclockwise direction to loosen.



Check Valve Removal Notes

2 ½” - 6” Cam Checks.

There are “special tools” available to help remove check modules.



Check Seat Removal

Check seats are part of each module and can not be removed.

If the seat is damaged, the complete check module will need to be replaced.



Check Disc Inspection 2 ½” - 6”

2 ½” - 4” - First check

6” - Check # 1 & Check # 2

Locate the stud on the outlet flange of the assembly.

Place the cam arm hole on the stud and open the check valve so that the cam arm rests between the roller and clapper.



Check Disc Inspection 2 ½” - 6”

2 ½” - 4” second checks only.

Lift the cam arm and hold in open position.

Raise the clapper so that the end of the cam arm rests between the roller and clapper.



Check Disc Inspection 8" - 10"

8" - 10" first check.

Place two 3/8" X 14" all thread rod through the two holes of the spring retaining plate.

Screw the rods into the disc holder about 1/2".

Secure both rods with 3/8" nuts.



Check Disc Inspection 8" - 10"

8" - 10" first check.

Tighten both nuts evenly to compress spring.

Compress the spring until the clapper has moved about 1" from seat and inspect.

To remove rod, loosen nuts evenly – be careful not to unscrew rod.



Check Disc Inspection 8" - 10"

8" - 10" second check

Using a 3/8" nut driver or a piece of small diameter pipe, place on the end of the torsion spring and move away from and around the retaining bracket.

This will free the cam arm and clapper.

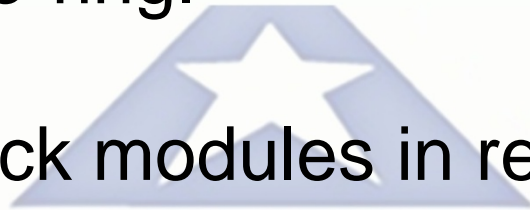


Check Valve Reassembly Notes

Lubricate check o-ring.

Reassemble check modules in reverse order.

Lubricate outside edge of groove coupler gasket.



Relief Valve Removal

RV assembly is threaded onto body and o-ring sealed.

Disconnect RV Hose.

Unscrew complete RV assembly from the main body.

Do not place wrench on RV housing. Place wrench on flange and cover only.



Relief Valve Removal

Remove cover bolts.

Remove piston and sleeve by sliding them out through the flange side of the RV housing.



RV Seat Removal

The RV seat is a machined part of the RV housing.

To replace the seat, you must replace the housing.



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Relief Valve Disassembly

Remove sleeve from piston assembly.

The piston assembly is spring loaded.

Hold the piston firmly in one hand and unscrew the hex head bolt.



RV Disc Replacement

Replace the RV disc
in the disc holder.

Replace the o-rings
on the hex head bolt.



RV Diaphragm Replacement

Reassemble the disc holder and spring to the diaphragm / piston assembly.

Slide sleeve over diaphragm.

Position the bead of the diaphragm over the edge of the sleeve.



RV Diaphragm Replacement

While holding the sleeve in one hand, place the bolt end of the assembly on a flat surface.

Using the other hand, cup the palm slightly over the diaphragm to form an air trap.



RV Diaphragm Replacement

Rapidly slap the diaphragm down over the piston assembly and inside the sleeve.

If the diaphragm is wrinkled, then it is not in the correct position.

Repeat this step if necessary.



Relief Valve Reassembly Notes

Slide the piston assembly and sleeve into the housing in reverse order.

