

# 825, 825D, 825YD

2 1/2" - 10"



American Backflow  
Products Company



# Modification Overview

825 (1975-1988) Cast iron body. Threaded in seats. Internal check parts are epoxy coated iron. Old style RV.

825D- (1988-1989) Ductile iron body Bolted in seats. Internal check parts are stainless steel. Old style RV.

825YD- (1989-2013) Ductile iron body, bolted in seats. Internal check parts are stainless steel. New style RV.

# Check Cover Removal

Cover is o-ring sealed.

2 ½" - 3" cover is spring loaded. Hold cover firmly while removing bolts.

4" - 10" Loosen bolts ½". Spring load is now released from the cover and retained by the check assembly.

Verify spring load before removing all the bolts.



# Check Valve Removal

Center stem guided  
check assembly.

2 1/2" - 3" spring, stem,  
and disc holder are free  
once cover is removed.

4" - 10" disc & spring  
subassembly.

Slide subassembly  
straight out of seat and  
body.



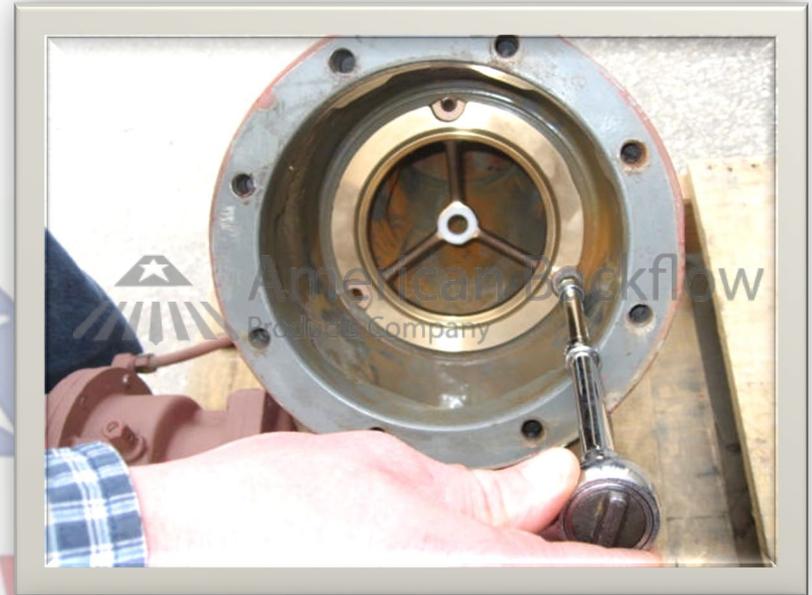
# Check Seat Removal

825Y and YD series seats are o-ring sealed and bolted into the body.

Remove bolts and pull seat straight out of body.

Inspect the plastic guide bushing in center of seat.

(825) series seats are threaded into the body.



# Check Disc Replacement

Unthread the nut from the stem and remove disc retainer.

For model (825) spring tension may have to be released to replace disc. Consult service center.



# Check Valve Reassembly Notes

Reassemble in reverse order.

Apply lubricant to o-rings.

2 ½" - 3" Models: Inspect and clean the plastic guide in the check cover.



# RV Repair 825 & 825D

Remove external sensing line.

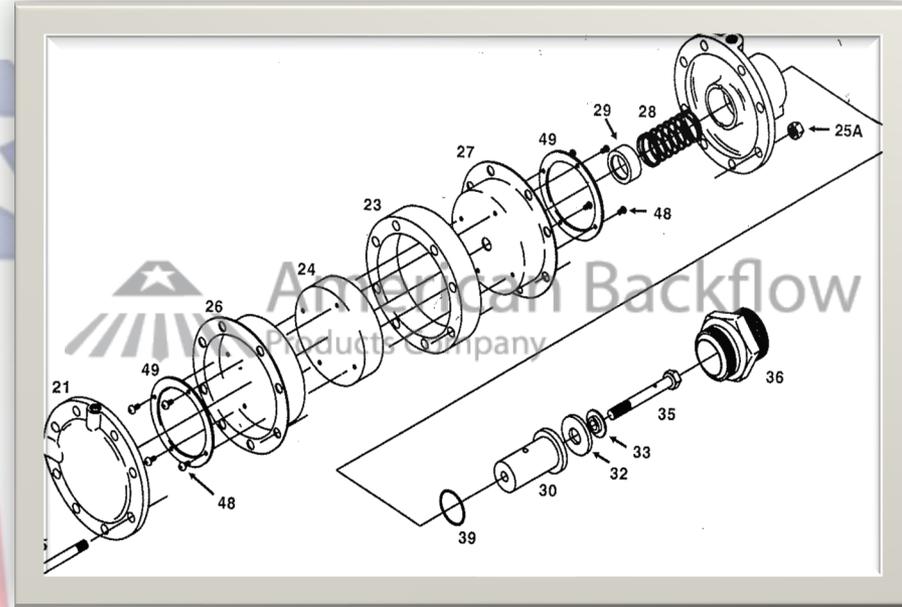
Un-thread the RV completely from the main body.

Remove cover bolts, nuts, cover and spacer.

Remove orifice bolt (#35)

Remove double diaphragm assembly, spring and spring button.

Remove both diaphragm washers and diaphragms from center button.



# RV Repair 825 & 825D

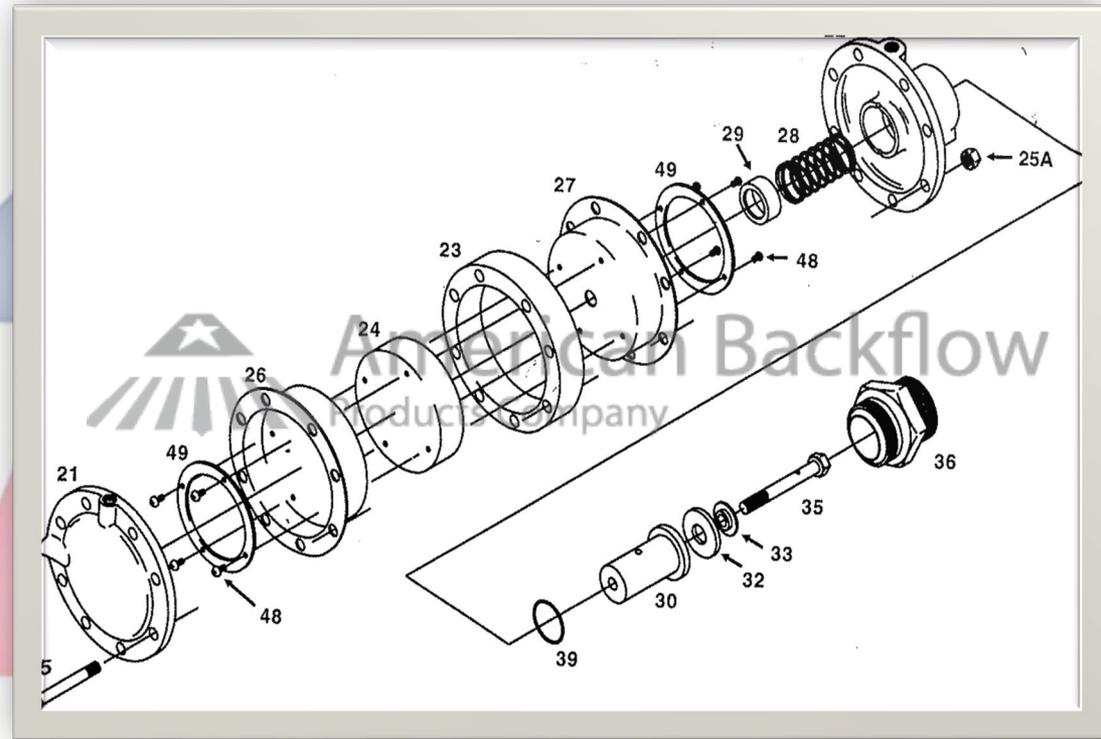
Push main stem out of bottom of RV body.

RV seat is threaded into body of main assembly.

Reassemble in RV reverse order.

Note: When installing diaphragms, make sure fabric side is toward the center button.

Do not over tighten orifice bolt into main stem.



# RV Cover Removal 825YD

Remove external sensing line.

RV cover is sealed by the diaphragm.

No spring load on cover.

Remove outer diaphragm.



# RV Module Removal 825YD

Module is o-ring sealed.

Pull module straight out of body.

Grasp the module (button) with one hand and insert fingers (other hand) into RV port and apply force to the seat disc.



Do not twist module.

# RV Seat Removal 825YD

RV seat is mounted between the RV housing and the RV adapter.

Remove the 4 bolts on the adapter and remove housing.

Seat is o-ring sealed.

Pull the seat straight out.



# Disassemble RV Module 825YD

Place the module on a flat surface with lower guide facing up.

Hold the main stem with one hand and unscrew the lower guide.



# Disassemble RV Module 825YD

With lower guide removed, place the module upside down on a clean surface.

Remove center of protective sticker (Save).

Hold the button firmly and loosen screw.

Button is spring loaded.



# Disassemble RV Module 825YD

Remove main stem  
and unthread the  
retainer.

Remove slip ring and  
inner diaphragm.



# Inner Diaphragm Replacement 825YD

Position the bead of the inner diaphragm into the groove of the upper guide.

Place slip ring over the diaphragm.

Thread retainer ring onto upper guide (hand tight).



# Main Stem Replacement 825YD

Push the inner diaphragm back through the upper guide assembly.

Insert main stem inside diaphragm.

The screw hole on diaphragm and main stem should be lined up.



# Spring / Button Replacement 825YD

Place the spring over the upper guide assembly.

Place button on spring and hold down firmly.

Replace button screw.

Reposition center label piece.



# RV Disc Replacement 825YD

Replace the RV disc  
in main stem.

Replace the disc  
washer and lower  
stem guide.

Replace and lubricate  
o-ring on main guide



# RV Reassembly Notes 825YD

Reassemble RV in reverse order.

Push the RV module straight into body. **\*\*Do not twist.\*\***

Replace outer diaphragm with fabric side against button.

Work the rolled edge into the space between the module and body.

