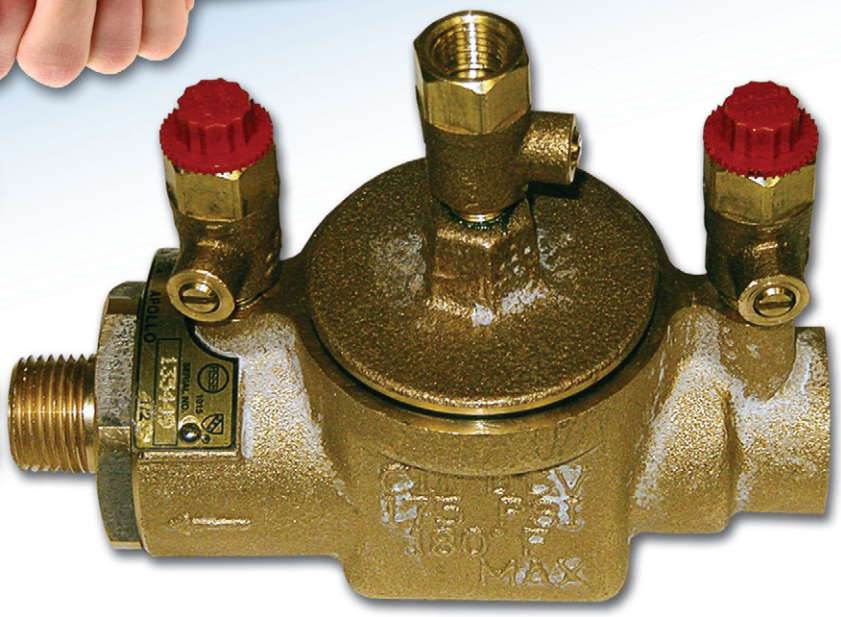
The Repair Guys



Repairing the Conbraco Bypass Device

In our line of work, we field questions from contractors and technicians concerning repairs, installations, and general backflow prevention practices. We'd like to share some questions that we receive as well as our answers. Everyone has different opinions on these subjects and we would like to hear yours. Contact us with questions and ideas via email at: imark@backflowparts.com or mail us at American Backflow Products Co., PO Box 37025, Tallahassee, Florida 32315.

~ Mark Inman and Doug Taylor

Question:

I was working on a 6-inch Conbraco 4S-600 series backflow last month and had to repair the 1/2-inch bypass assembly on the unit. I was wondering if you could tell me how to repair this unit?

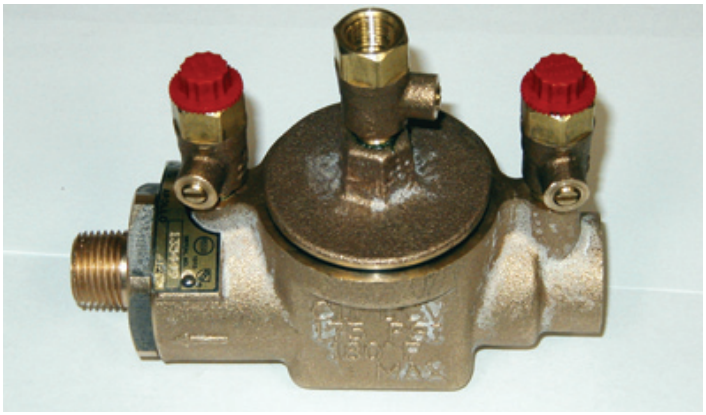
Doug:

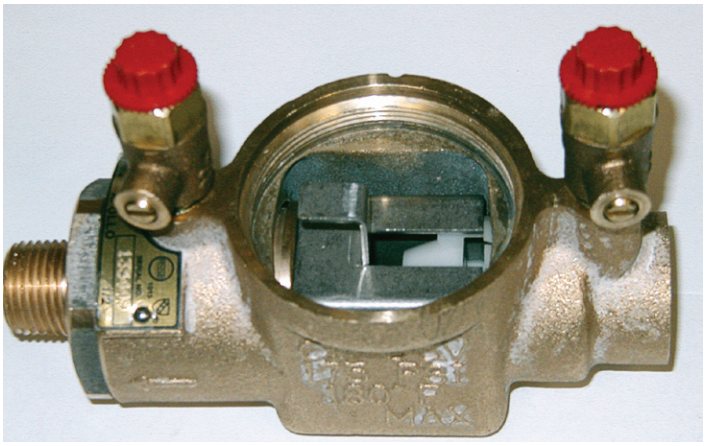
We have been used to seeing 3/4-inch size devices used as by-pass assemblies. You will find that some manufacturers are now using 1/2-inch size units for the by-pass assembly on their newest DCDA models.

The 4S-600 series double check detector assembly utilizes the 4S-103 model as the bypass assembly. This assembly is 1/2-inch in size and utilizes a modular design.

Mark:

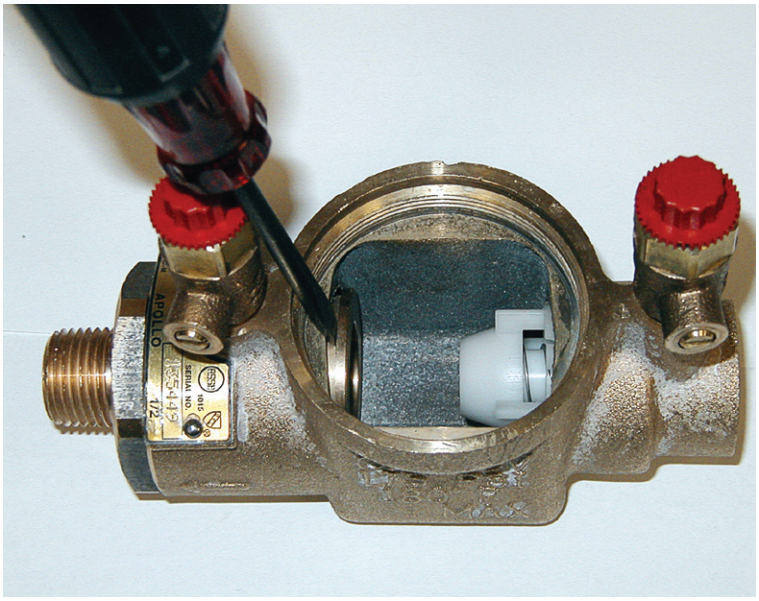
This assembly has a single access cover. The cover is threaded onto the body and o-ring sealed. Use the wrench flats on the cover to unscrew the cover in a counter-clockwise direction. There is no spring load on the cover. Once the cover is removed you will see a stainless steel retainer in the center of the device. Using the tab on the top of the retainer pull the retainer straight out of the device. Once the retainer is removed you will have access to both check modules.

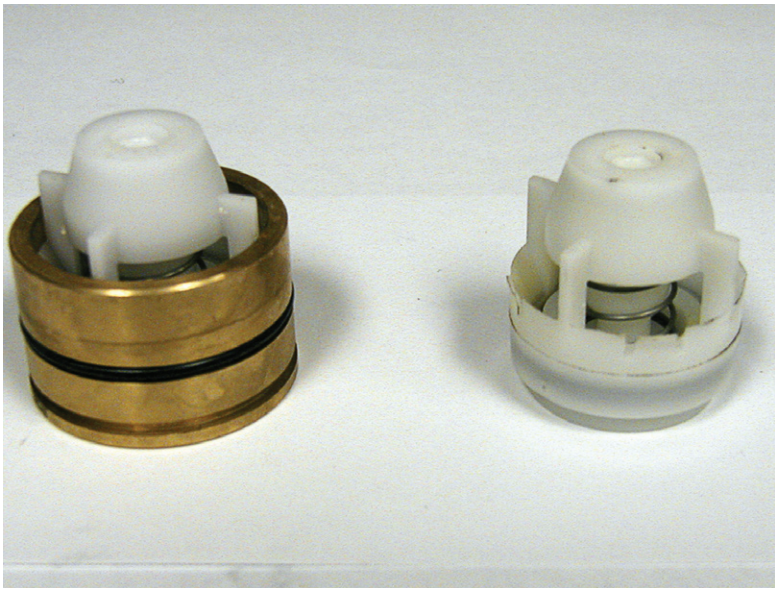




Doug:

Both check modules are o-ringed sealed and are pushed into the body bore. You must remove the #1-check module first in order to remove the #2-check module. You can use a flat head screwdriver to help remove both checks. You will notice that the #1-check module is plastic and white in color. The #2 module has a brass body. Be aware that there is an o-ring on the inlet side of the #1-check module that may not come out when the module is removed. Make sure to remove this o-ring if it is still inside the valve body.





Mark:

Now that both check modules are out, we can begin to work on them. As you will see the two check valve modules have different designs. These check modules are not meant to be disassembled. If there is something wrong with them then you must replace the complete check module. You can still examine the modules for any cracks in the plastic components. Make sure that all four arms on the cage are still intact. In order to examine the rubber you will need to compress the check and look down through the cage to see the rubber disc. To clean the rubber, you can use a toothpick or paperclip to scrap the rubber between the check cage arms.

Doug:

The check modules will have to be reinstalled in reverse order starting with the #2-check. Make sure that you lube up the o-ring on the outside of the #2-check module and then slip it into the body bore. The #1-check module is slightly different. The o-ring for the #1 fits up inside the body bore before you insert the check module. Now slip the #1-check into the body. You may have to push the check in until it snaps into place. If both modules are seated correctly, the stainless steel retainer will slide snuggly into place. The retainer can be put in with the tab facing either direction. Finally, lube the cover o-ring and screw the cover back onto the device.