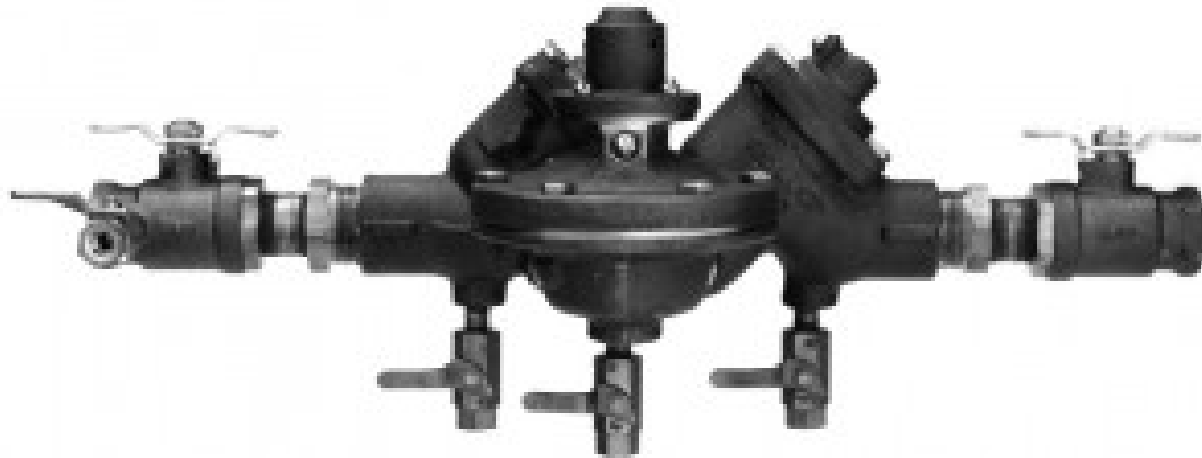


Model RP-2

$\frac{3}{4}$ " - $1 \frac{1}{2}$ "



American Backflow
Products Company



Product Overview

Model RP-2 (1978 - 2003) Utilized poppet style checks and a CDHS-20 relief valve.

Replacement hardware parts were discontinued in 2005. Only repair kits with rubber parts are available.

Check Cover Removal

The check covers are secured by 4 cap screws and sealed by an o-ring.

The covers are spring loaded.



Check Valve Removal

Poppet style checks.

Once the cover is removed the poppet and spring are free.

Green Spring indicates first check.

Orange spring indicates second check.

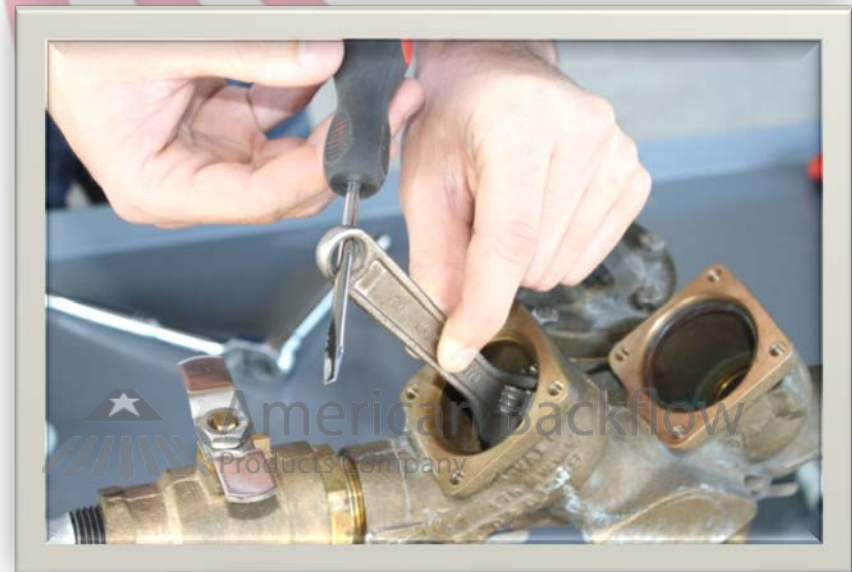


Check Seat Service

Check seats are o-ring sealed and threaded into the body.

Replacement seats are no longer in production.

Very fine nicks on the seating edge can be restored by slowly working 400 wet or dry sandpaper on the beveled edge of the seat.



Check Disc Replacement

Hold the disc retainer in one hand and with an allen wrench, unscrew the stem from the disc retainer.

Replace the disc as necessary.



Check Valve Reassembly Notes

Inspect and clean the guide bore on the cover.

The stem must move freely in the guide bore.

Reassemble in reverse order.



Relief Valve Cover Removal

The CDHS-20 RV has two covers. The belloram cover (item 3) and the intermediate body or “diaphragm cover” (item 2).

The belloram cover (item 3) is located on top of the RV assembly.

The belloram cover is secured by screws and sealed by the belloram.

There is no spring load on this cover.



Relief Valve Cover Removal

The intermediate body (item 2) is secured by cap screws and sealed by the diaphragm.

There is a slight spring load on this cover, so exert pressure downward on the cover as the cap screws are removed.

The RV stem assembly is mounted through the intermediate body.

The RV spring is free once cover is removed.



Disassemble RV Stem

- The stem is secured by the upper and lower stem nuts (item 16).
- Remove the upper stem nut first.
- The bellofram, piston and retainer can now be removed from the upper stem.
- Remove the stem along with the diaphragm and disc from the body.



Disassemble RV Stem

Remove lower stem nut
(item 16).

Remove the diaphragm
(item 13), the lower stem
o-ring (item 15) and
washer (item 7) from
stem.



RV Disc Replacement

The RV disc (9), disc retainer (8), and guide (10) are removed as one assembly.

Remove guide and pry disc from retainer.



RV Seat Service

The RV seat is o-ring sealed and threaded into the main RV body.

Replacement seats are no longer in production.

Very fine nicks on the seating edge can be restored by slowly working 400 wet or dry sandpaper on the beveled edge of the seat.



Diaphragm Reassembly

Reassemble the diaphragm (item 13), lower stem o-ring (item 15) and washer (item 7) on the lower stem (4).

Reassemble the RV disc, disc retainer, and guide as one assembly on the lower stem.

The serrated area of the disc retainer (8) is positioned against the diaphragm.

Insert the stem (4) with diaphragm and disc retainer intact, into the intermediate body.



Upper Stem Reassembly

Reassemble the bellofram (12), piston (5), retainer (6) and stem o-ring (15) on the upper stem and replace stem nut.

Position the retainer (6) with its outer lip facing up.

Position the bellofram with the glossy side against the retainer(6). The fabric side against the piston(5)

Position the piston (5) with the recess around the stem hole facing down toward the o-ring (15).



Intermediate Body Reassembly

Position the RV spring over the seat in the main body.

Insert cap screws through intermediate body and diaphragm.

Make sure the sensing passage is aligned properly.

Press the intermediate body down on the main body and start cap screws.

Be sure to evenly cross tighten cap screws.



Bellofram Reassembly

Carefully push bellofram(12) “brim” straight down over itself so that the “brim” is flat and smooth against the intermediate body.

Make sure the bellofram is not twisted or wrinkled.

Install cover (3) so that weep hole faces out away from backflow.

Do not rotate cover after placing over the “brim”, this can twist and tear the bellofram.

