

# Technical Information Bulletin

Date: 01.08.2017

## Concerning: Improvement of 541 control valve

Dear Customer,

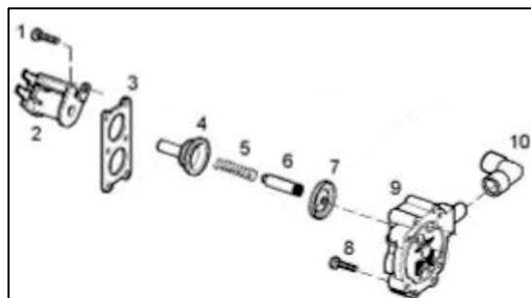
In our continuous efforts to further improve the quality of our products, we are implementing the following modification on the 541 control valve, that is used on all residential water softening systems.

We are introducing an entirely new back cap configuration that will greatly simplify maintenance of the integrated solenoid(s).

The CURRENT back cap configuration requires removal of several screws to gain access to the solenoid components:

1. remove fixation screw(s) of solenoid coil(s) and
2. remove solenoid coil(s);
3. remove fixation screws of retainer plate;
4. remove retainer plate, solenoid guide(s), spring(s) and plunger(s) (with risk of falling apart and losing any of these components!)
5. remove diaphragm(s).

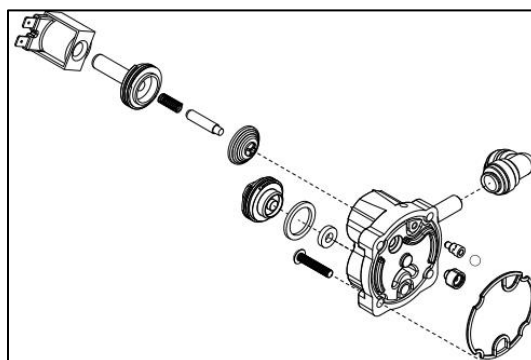
See video 'CURRENT back cap configuration'.



On the NEW back cap configuration there is no need to loosen any screws:

1. solenoid coil has a 'snap fitting' and can simply be pulled off;
2. solenoid guide, spring, plunger and diaphragm can be removed as one assembly, simply by unscrewing it from the back cap, using a (universal) plier or a tool, that we specifically developed for this purpose (PN 39117);

See video 'NEW back cap configuration'.

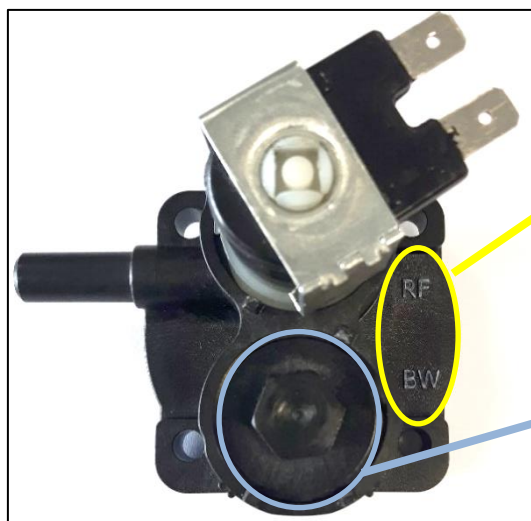


We have opted to only manufacture the new back cap with the 2 'seats', for the 2 solenoids, present; refill solenoid at the top, backwash solenoid on the bottom. Any of these 2 seats can simply be plugged if the respective solenoid function is not necessary; on Eco systems this means that the bottom seat (for backwash solenoid) is plugged. Furthermore we have added indications on the back cap, next to the solenoid seats, clearly indicating the function of each seat/solenoid:

RF = refill = TOP seat/solenoid

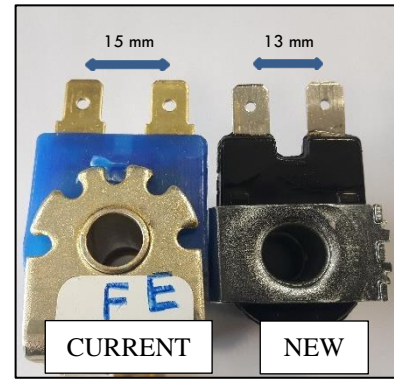
BW = backwash/fast rinse = BOTTOM seat/solenoid

These indications will avoid incorrect connection of the solenoid cable from the electronic control panel to the solenoid coil.



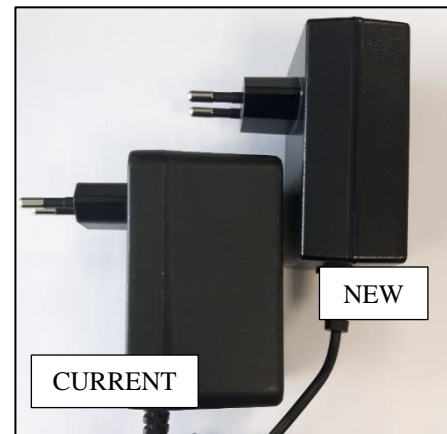
This new back cap configuration comes with some additional modifications/improvements:

1. Solenoid cable(s): because the spacing between the spade connections on the new solenoid coil is smaller than on the current solenoid coil, the connection cables for the refill & backwash solenoid are modified. We have opted to standardize to 1 colour (black) instead of 2 colours (white for refill, black for backwash) for both solenoids, however with a clearly visible label, marked RF (for refill) or BW (for backwash), at both ends of the cable (at the side of the solenoid coil and at the side of the PCB).



2. Transformer: because of pending Energy Efficiency regulations we are switching from the current AC/AC transformer to a new AC/DC transformer. Advantages are:
  - higher efficiency / lower energy loss (< 0.5 watt)
  - light weight;
  - more compact.

**Note:** The connection plug on the outlet cord of the new AC/DC transformer is SMALLER than on the current AC/AC transformer, although it is similar model. This is done intentionally to avoid use of an incorrect transformer.



3. Printed Circuit Board: the PCB is modified to operate on DC current.

**Note:** This also implicates that the auxiliary contacts now output 24V DC instead of 24V AC; please keep this in mind when connecting any external devices to the auxiliary contact(s).

**Note:** The PCB will not get damaged when an incorrect transformer (AC instead of DC, and vice versa) is connected; it will simply not function.

The new version of all above mentioned components are NOT individually interchangeable with the current version! It is possible to update a control valve to this new back cap configuration, but only if all above mentioned components are replaced! For more information about the Part Numbers, see the updated Technical Manuals available on our website as of the second week of august.

Spare parts for the current configuration of course remain available for maintenance and repair.

This modification will be implemented on control valves of the Maxima, H2Optimo and Sentencia range as of 8/08/2017.

Please do not hesitate to contact us if you need any additional information on this topic.

A handwritten signature in black ink, appearing to read 'Sofie Redig'.

Sofie Redig  
Technical Support