



VG10 Filter Exchange Manual

Instructions for filter exchange (en)

Version 1.0.2

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1. What's in the box?

Everything you need to exchange the VG10 filter is included:

- 16x Input filters
- 16x Filter fixing fittings
- 16x O-rings for input filters
- 1x Output filter
- 1x O-ring for output filter
- 1x Retaining ring
- 1x 14mm Spanner
- 1x Loctite 243
- 1x 3mm Hex key

Table of contents

1. What's in the box?	3
2. Replacement of filters	4
2.1. Output filter	4
2.2. Input filters	7
3. Safety	10
3.1. Environmental safety	10
3.2. General safety instructions	11

2. Replacement of filters



DANGER

You must read, understand and follow all safety information in this manual and the VG10 manual before performing service. Failure to comply with safety information could result in death or serious injury.

2.1. Output filter

Exchange guide:

1. Place the VG10 on a stable surface so that you have both hands to perform the service.
2. Use a screwdriver (or similar) to remove the notch of the retaining ring; the screwdriver has to pry out the ring by pushing the tip towards the center of the VG10, see figure 1.1. The ring will spiral out of the groove, but it can be tricky. See a demonstration video by following the link below.



https://www.youtube.com/watch?v=v_8L3BMJTfA&list=PL2WIWhykCPgT8wWoS4bFjWtpMT3EOzUHv&index=5

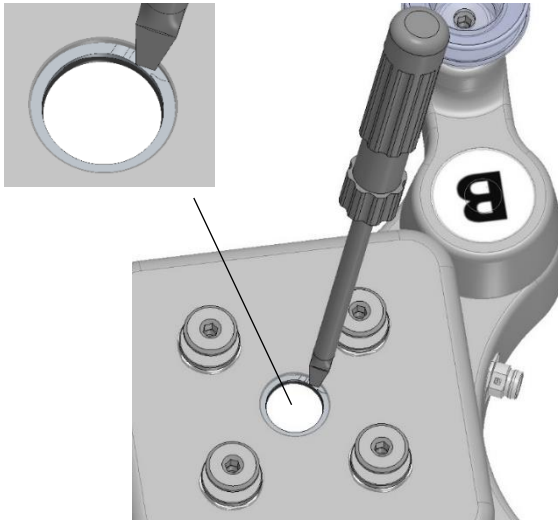


Figure 1.1: Removal of retaining ring.

3. Remove the o-ring and the filter.
4. Place the new o-ring (The big one of the 17 o-rings) in the groove.
5. Place the new filter on top of the 0-ring (The big one of the 17 filters), see figure 1.2 for assembly order.

VG10 Filter Exchange Manual 1.0.2

6. Insert the retaining ring by separating the multiple windings and inserting an end into the groove in the hole. Press down around the circumference and wind the ring into the groove. See a demonstration video by following the link below.

https://www.youtube.com/watch?v=3h0IPS_zkhQ&index=1&list=PL2WIWhykCPgT8wWoS4bFjWTpMT3EOzUHv

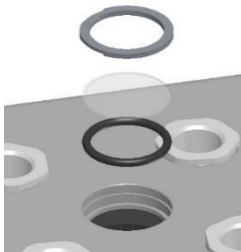


Figure 1.2: Assembly order of spare parts.



CAUTION

Make sure that no particles go into the VG10 air channels when filters are out. Particles inside the VG10 can cause failure of pump, valves or pressure sensors periodically or permanently.

2.2. Input filters

Exchange guide:

1. Use the 14 mm spanner to unscrew the 16 Filter Fixing Fittings, see figure 1.4

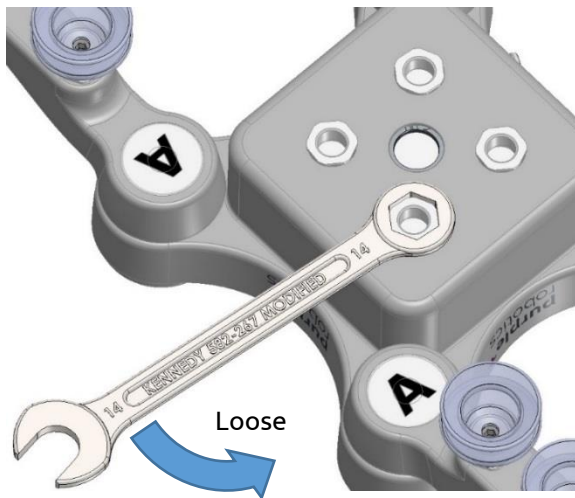


Figure 1.4: Removal and tightening of filter.

VG10 Filter Exchange Manual 1.0.2

2. Remove Loctite residue from the M12 threads. Make sure no residue falls inside the airway of the VG10.
3. Remove the o-rings and the filters
4. Place the new filters in the grooves. See figure 1.5 for assembly order.
5. Place the new o-rings on top of the filters.



Figure 1.5: Assembly order of

6. Unscrew the Loctite bottle lid and cut of the tip.
7. Add Loctite to the new Filter Fixing Fittings thread. Enough fluid must be added to the Fitting to complete a circle of Loctite. See figure 1.6.
8. Screw in the Filter Fixing Fittings. Assembly torque approximately 4 Nm.
9. Let it dry for a minimum of 30 minutes before using the VG10.



Figure 1.6: Loctite added to the Filter Fixing Fitting.



DANGER

1. Loctite may not come into contact with anything else but the Filter Fixing Fittings. If Loctite comes into contact with humans or animals, especially the eye or mouth area, contact emergency medical help immediately.
2. Loctite may not be exposed to temperatures higher than 40°C (104°F) as it can create hazardous vapors. If such vapors are inhaled contact emergency medical help immediately.

The safety data sheet for Loctite 243 can be found here:

http://mymsds.henkel.com/mymsds/0006.1330799.0194.en.MSDS_UT_GB.31703876.0.GB.pdf

3. Safety

3.1. Environmental safety

OnRobot's products must be disposed of in accordance with the applicable national laws, regulations and standards.

The product is produced with restricted use of hazardous substances to protect the environment; as defined by the EU RoHS directive 2011/65/EU. These substances include mercury, cadmium, lead, chromium VI, polybrominated biphenyls and polybrominated diphenyl ethers.



3.2. General safety instructions

Generally, all national regulations, legislations and laws in the country of installation must be observed. Integration and use of the product must be done in compliance with precautions in this manual. Particular attention must be paid to the warnings below.



DANGER

- You must read, understand and follow all safety information in this manual, and the robot manual and all associated equipment before initiating robot motion. Failure to comply with safety information could result in death or serious injury.
- The VG10 can fail if particles or dried Loctite are left inside.
- OnRobot disclaims any and all liability if the VG10 is damaged, changed or modified in any way. OnRobot cannot be held responsible for any damages caused to the VG10, the robot or any other equipment due to programming errors or malfunctioning of the VG10.
- Filter service kit must be stored at max 40°C (104°F).
- Filter service kit must be kept out of reach of children and animals. Other service instructions for the robot installation must be observed.
- Filter service kit must be kept out of reach of children and animals.
- Loctite is very toxic and should only be applied by personnel who have been given a safety course in glue application.
- Loctite may cause an allergic skin reaction.
- Loctite may cause chronic hazards to the aquatic environment.



