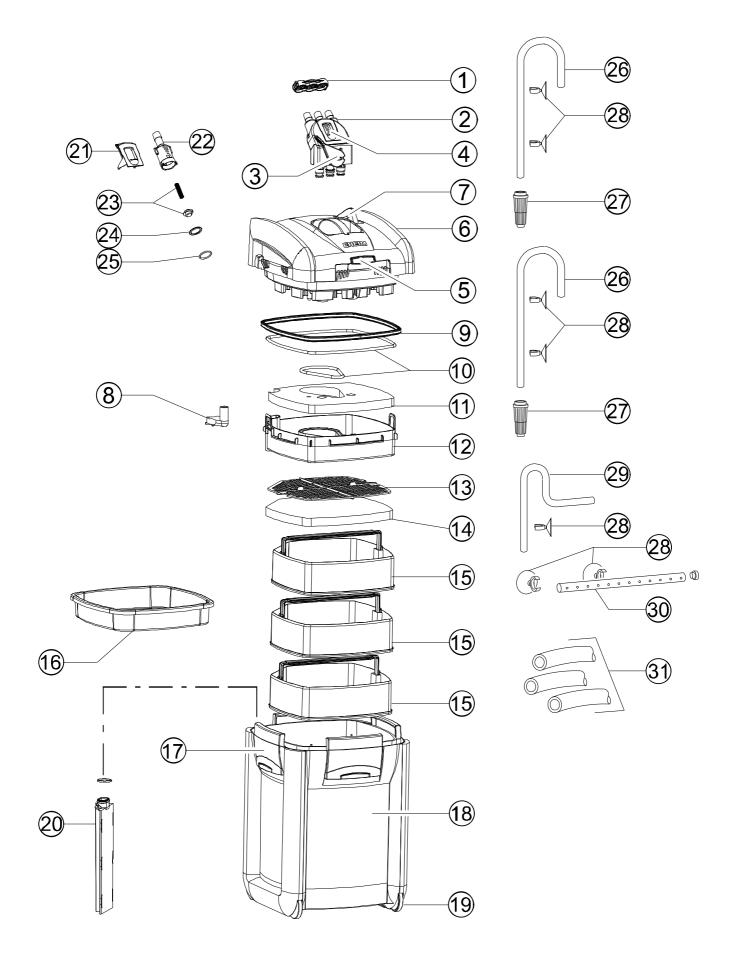


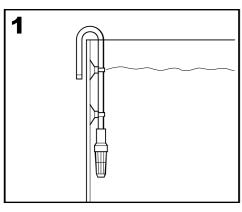
<u> </u>	Aquarien-Außenfilter
(GB) (SA External aquarium filter
F	Filtre extérieur pour l'aquarium
NL	Aquarium-Buitenfilter
	Filtro esterno per acquario
S	Ytterfilter för akvarier
E	Filtro exterior para acuario
(DK)	Eksternt filter
FIN	Ulkosuodattiment
N	Utvendig akvariefilter

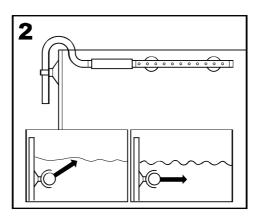
	Fillios exteriores para aquario
GR)	Εξωτερικό φίλτρο ενυδρείων
RUS	Внешний аквариумный фильтр
HU	Külső szűrő akváriumhoz
CZ	Vnější filtr pro akvária
SK	Vonkajší filter pre akvária
PL	Filtr zewnętrzny do akwarium
SLO	Zunanji filter za akvarij
CHIN)	—————————————————————————————————————

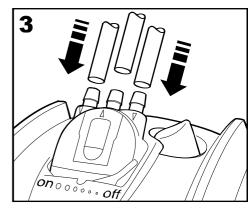
Filtermedien Filter media Moyens de filtration Filtermedia Filtri **Filtermedier Material filtrante Filtermedier** Suodatinmateriaalit **Filtermedier** Produtos de filtragem Υλικά φίλτρων Фильтровальные материалы Szűrő közegek Filtrační média Filtračné média Media filtracyjne Filtrski mediji 过滤介质

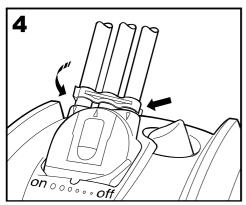


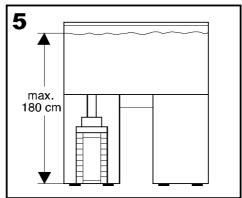


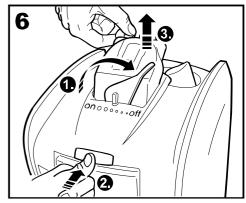


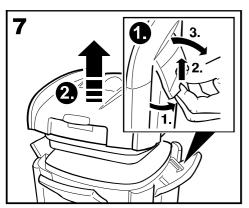


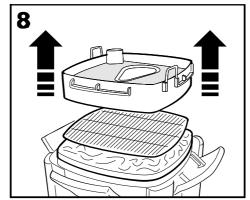


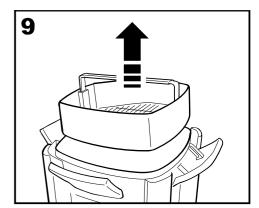


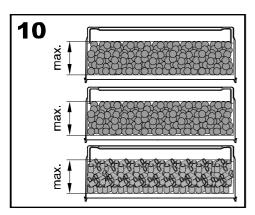


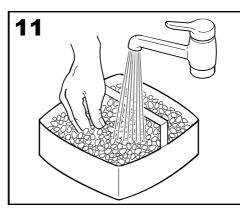


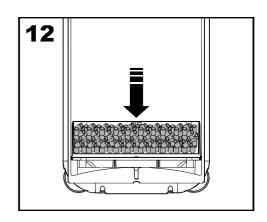


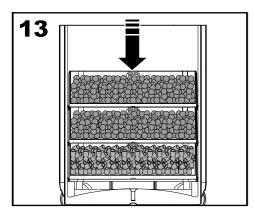


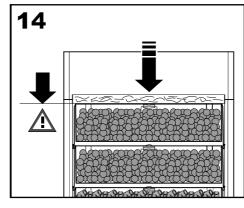


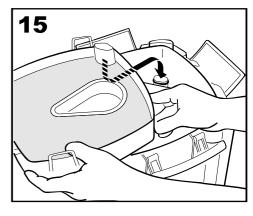


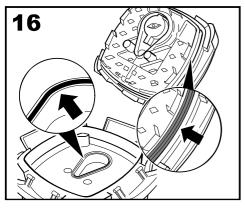


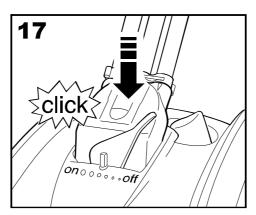


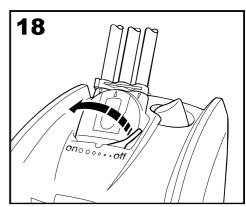


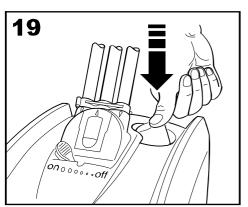


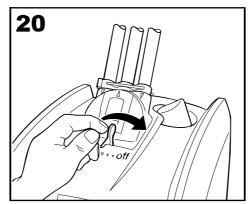


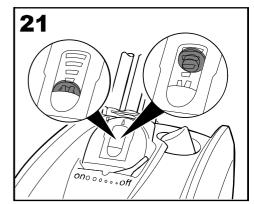


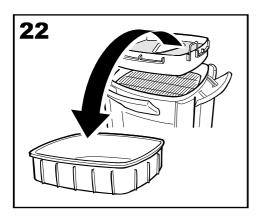


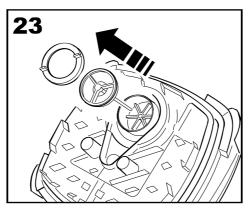


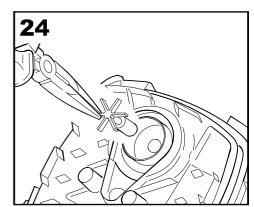


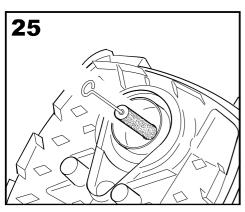


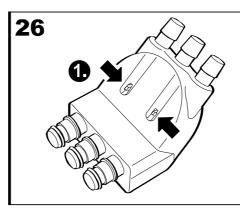


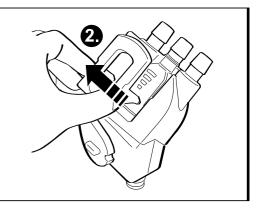


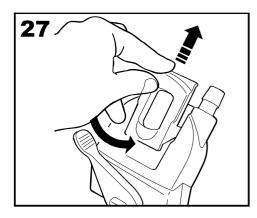


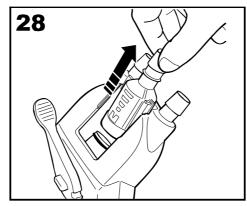


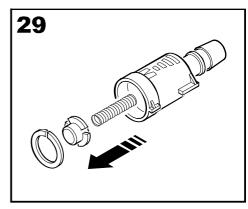












IMPORTANT SAFETY INSTRUCTIONS

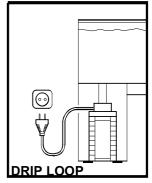
WARNING - To guard against injury, basic safety precautions should be observed, including the following.

a) READ AND FOLLOW ALL SAFETY INSTRUCTIONS.

- b) **DANGER** To avoid possible electric shock, special care should be taken since water is employed in the use of aquarium equipment. For each of the following situations, do not attempt repairs yourself; return the appliance to an authorized service facility for service or discard the appliance
 - 1) If the appliance falls into the water, **DON'T** reach for it. First unplug it then retrieve it. If electrical components of the appliance get wet, unplug the appliance immediately. (Non-immersible equipment only)
 - 2) If the appliance shows any sign of abnormal water leakage, immediately unplug it from the power source. (Immersible equipment only)
 - **3)** Carefully examine the appliance after installation. It should not be plugged in if there is water on parts not intended to be wet.
 - **4)** Do not operate any appliance if it has damaged cord or plug, or if it is malfunctioning or has been dropped or damaged in any manner.
 - **5)** To avoid the possibility of the appliance plug or receptacle getting wet, position aquarium stand and tank to one side of a wall-mounted receptacle to prevent water from dripping onto receptacle or plug.

A "drip-loop", shown in the figure below, should be arranged by the user for each cord connecting an aquarium appliance to a receptacle. The "drip-loop" is a part of the cord below the lever of the receptacle, or the connector if an extension cord is used, to prevent water traveling along the cord and coming in contact wit the receptacle.

If the plug or socket does get wet, **DON'T** unplug the cord. Disconnect the fuse or circuit breaker that supplies power to the appliance. Then unplug and examine for presence of water in the receptacle.



- c) Close supervision is necessary when any appliance is used by or near children.
- d) To avoid injury, do not contact moving parts or hot parts such as heater, reflectors, lamp bulbs, and the like.
- **e)** Always unplug an appliance from an outlet when not in use, before putting on or taking off parts, and before cleaning. Never yank cord to pull plug from outlet. Grasp the plug and pull to disconnect.
- **f)** Do not use an appliance for other than intended use. The use of attachments not recommended or sold by the appliance manufacturer may cause an unsafe condition.
- **g)** Do not install or store the appliances where it will be exposed to the weather or to temperatures below freezing.
- h) Make sure an appliance mounted on a tank is securely installed before operating it.
- i) Read and observe all the important notices on the appliance.
- j) If an extension cord is necessary, a cord with a proper rating should be used. A cord rated for less amperes or watts than the appliance rating may overheat. Care should be taken arrange the cord so that it will not be tripped over or pulled.

k) "SAVE THESE INSTRUCTIONS"

Thank you very much

for buying your new EHEIM professionel 3 high tech generation external filter. With its newly developed priming aid, functional safety adapter and optical flow monitoring, this innovative system provides optimal convenience and utmost safety. The large container volume, the large prefilter on top and the finely balanced filter media assembly ensure optimal water clarification and a highly efficient decomposition of pollutants, thus ensuring the well-being of your aquarium occupants.

The filter is extremely easy and convenient to operate properly. These detailed instructions will tell you everything worth knowing about initial installation, maintenance and servicing.



Safety regulations



For indoor use only. For use with aquariums.



Disconnect all submerged electrical equipment from mains before putting your hand in the aquarium water.



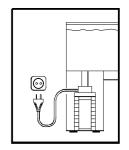
The appliance connecting lead cannot be replaced.

The appliance must not be used any more if the cable is damaged.

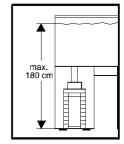
Contact your specialist dealer or your EHEIM service centre.

For your own protection, it is advisable to make a loop in the electrical cable to catch drips and prevent any water running along the cable from entering the socket.

If an extension socket is used, it must be placed above the filter mains connection.



When selecting a location for the appliance, pay attention to the prescribed vertical clearance. To achieve optimal operational safety there must be a maximum of 180 cm between the surface of the water and the bottom of the filter.



With these devices, magnetic fields can cause electronic or mechanical disturbance or damage. This can also affect cardiac pacemakers. The safe distances required can be found in the manuals for these medical appliances.



Due to strong magnetic forces, there is a risk of crushing the fingers during servicing.

Since a wide variety of varnishes and polishes are used when processing timber, the appliance feet can leave visible traces on furniture or parquet floors as a result of chemical reactions. Therefore the device should not be placed on unprotected wooden surfaces.



The product is approved in accordance with the relevant national regulations and guidelines and complies with EU standards.

External filter 2080 for aquariums

Model:

See nameplate on top part of the filter

Subject to technical alterations.

Contents	Page
Definition of individual parts / What delivery includes Installing the hose Installing the filter Filling of filter materials Taking into operation Servicing and maintenance	13 13-14 14 14-15 16 16-18
Troubleshooting	18-20

General operating description

The EHEIM professionel 3 external filter cleans the aquarium water in a closed loop. The professionel 3 external filter has two suction channels for individual placement of suction areas in the aquarium. The built-in maintenance-free pump ensures continuous circulation. Water from the aquarium is passed through several filter layers where it is filtered mechanically, biologically or by adsorption before flowing back into the aquarium. For the filter to function, air has first to be removed from the system. This is easily done using the built-in priming aid.

Note: For optimal filter performance and trouble-free operation, it is essential to use EHEIM original filter materials (see chapter on Filling of Filter Materials).

Definition of individual parts / What delivery includes

① Hose guard, ② Safety adapter with integrated shut-off valves, ③ Shut-off lever, ④ Indicator, ⑤ Red safety catch, ⑥ Pump head, ⑦ Priming aid, ⑧ Intake fitting, ⑨ Sealing gasket, ⑪ Sealing rings (prefilter), ⑪ Filter pad (blue), ⑫ Prefilter, ⑪ Lattice screen cover, ⑭ Filter pad (white), ⑮ Filter inserts, ⑯ Transportation dish for prefilter, ⑰ Closing clips, ⑯ Filter container, ⑲ Castors, ⑳ Partition, ㉑ Indicator lid, ㉑ Indicator housing, ㉑ Spring with float, ㉑ Brace, ㉑ Sealing ring, ㉑ Suction pipe (2x), ㉑ Strainer (2 x), ㉑ Suction head with clamp, ㉑ Outlet bend, ㉑ Nozzle tube, ㉑ Hoses.

Unpacking

When unpacking, check that all parts are present. Some installation accessories are packed in the filter container.

- Tilt out all four closing clips on the filter head, push up and fold out. Remove pump head (see Point 7). Remove prefilter, lattice screen cover and filter pad (white) from the container (see Point 8). Pull out filter inserts by the handle (see Point 9).

Installing the hose

1 Place a strainer on each suction pipe and fit at the desired locations in the aquarium with the help of the suction holders.

2 Outlet bend and nozzle tube are connected with a short section of hose and likewise fastened to the inside wall of the tank with suction pads. The plug for the open end of the nozzle tube is not fitted until the filter is running.

Tip: The nozzle tube can be installed either below or at water level, depending on the degree of surface movement desired. Cut each hose to the required length and push up at least 1 cm on to the suction pipe and outlet bend. Make sure that the hoses are laid as short as possible and that they do not sag or kink. Sagging hoses can worsen the suction process considerably.

Tip: Any kinks that form can be pressed out if the hoses are rendered supple in hot water.

- 3 Connect the suction pipe hoses to the left and right hose connectors on the adapter (marked ▼) and join the outlet bend to the adapter with the middle hose connector (marked ▲). Push up all three hose ends until they lock into place (if necessary, render supple with hot water beforehand).
- **4** Then, lay the two-part hose guard right round the assembled ends close to the adapter, hook in laterally and clip together.

Note: Be sure to use original EHEIM hoses. Check all hose connections at regular intervals to make sure they fit properly.

Installing the filter

5 When choosing a location for the filter, pay attention to the prescribed vertical clearance. To achieve optimal operational safety, the distance between the water surface and the filter bottom may not exceed 180 cm. However, the upper edge of the pump head should be at least 10 cm below the surface of the water. It is better to place it underneath the aquarium.

Tip: The EHEIM professionel 3 external filter has 4 castors. By tilting slightly, the filter can easily be placed in the cabinet. In the standing position, the load is removed from the castors.

Note: Since a wide variety of varnishes and polishes are used when processing timber, the feet of the appliance can leave visible traces on furniture or parquet floors as a result of chemical reactions. Therefore the device should not be placed on unprotected wooden surfaces.



Attention: Always operate the filter in a standing position.

Filling with filter materials

Remove adapter

6 Turn shut-off lever on the adapter to the OFF position. Press the red safety catch (can only be pressed when the shut-off lever is in the OFF position). The safety adapter springs out of its holder and can be removed.

Open filter

- 7 Tip out all four closing clips on the filter container, push up and fold out. Remove pump head.
- **8** Take prefilter, covering grid plate and filter pad (white) out of the container.
- 9 Pull out filter inserts by the handle. The recessed handle can be pulled up and out.

Filling

To ensure optimal, trouble-free functioning of your EHEIM professionel 3 external filter, we recommend that you use original EHEIM filter materials. Only they are designed precisely for use with the EHEIM external filter, provide an ideal surface for purifying bacteria to colonise and ensure clean, healthy aguarium water. You can buy the right media set for the EHEIM professionel 3 from your pet shop dealer, order number 2520800.

10 Fill the bottom filter insert with EHFIMECH to just below the edge. Fill the second and third filter insert to just below the edge with SUBSTRAT pro.



Attention: Do not overfill as otherwise the filter inserts will not fit on top of each other properly.

- 11 Next, rinse the filter medium in the filter insert under running water, mixing thoroughly at the same time, until no cloudiness is visible in the water.
- 12 Insert the filter insert filled with EHFIMECH at the bottom of the filter container and press down firmly onto the base runners.
- 13 Insert the second and third filter inserts (both filled with SUBSTRAT pro) after rinsing in the same way. Push the handles back in and make sure that all filter inserts lie flush on top of each other.
- 14 Next, lay the white filter pad on the top filter insert so that it is placed on the pushed-in handle.



Attention: The white filter pad must not be under the handle!

Place the lattice screen cover on the white filter pad.

Prefilter

Function: The prefilter collects coarse dirt from the aquarium water so that the water that flows through the filter inserts has been pre-filtered. This substantially reduces the amount of dirt that reaches the filter inserts and guarantees highly efficient biological decomposition of pollutants and a long service life. The prefilter can easily be removed. To make interim cleaning even easier, the scope of delivery includes a dish for transporting the prefilter.

15 Insert prefilter with blue filter pad in the filter container so that that the overflow area is above the partition.

Note: The priming system only functions when the prefilter is empty.

Close filter, insert safety adapter

- **16** Check that the gasket fits properly on the pump head and the sealing ring fits properly on the prefilter and remove any soiling. Check for soiling on the sealing surface on the upper edge of the container, clean if necessary and grease lightly with EHEIM Care Spray, Order No. 400 100 0.
- Place pump head on filter container and close all four clips.
- 17 Push safety adapter into the pump head, applying light pressure, until it engages with anaudible CLICK. The shut-off lever must be in the OFF position to insert the adapter as otherwise a safety mechanism prevents it from engaging.

Taking into operation

- 18 First turn the shut-off lever on the safety adapter to the ON position to open the three valves. If the shut-off lever cannot be turned to the ON position, the safety adapter has not been fitted correctly to the pump head. In that case, repeat step 17.
- 19 Press the suction aid firmly several times until the filter container automatically fills with water. As soon as the container is full the mains plug can be plugged in to begin operating the filter.

Make sure that the nozzle tube (delivery side) is above the surface of the water during the filling process so that the device is optimally bled of air.



Attention: Depending on the way the hoses are laid, initially only one of the two hoses may fill with water. In that case, you can squeeze the filled suction channel firmly toget her with your fingers until the empty hose has filled.

- Then place the plug in the open end of the nozzle tube.

Regulating the flow

20 To set the desired filtering performance on the delivery side, turn the shut-off lever on the safety adapter slowly in the OFF direction. The float in the indicator window shows the actual flow of water.

Indicator

The indicator provides continuous information about the volume of water flowing through and signals any faults that may occur. If the float touches the red bar, the filter is not per forming to its full capacity and the filter system must be checked (see Troubleshooting, pages 8-11).

Service and maintenance

- First turn the shut-off lever on the safety adapter to the OFF position (see step 20). Pull out plug from mains. Remove safety adapter (see step 6).
- Tilt the filter slightly forward, using the recessed grips and pull out of the cabinet on the castors. Open all four closing clips and remove the pump head.

Interim cleaning (prefilter)

22 Pull prefilter out of the container by the two handles and place in the prefilter transportation dish. Empty prefilter and rinse out blue filter pad thoroughly under lukewarm running water until the water runs clear.

Tip: Renew blue filter pad after the second or third cleaning (Order No. 2616801).

- Remove lattice screen from the container and check to see if the white filter pad is very dirty. Replace if necessary. The white filter pad is for mechanical fine filtering. Since the dir particles that cling to it cannot be completely washed out, the filter pad may only be used once. Use a new filter pad (Order No. 2616805).
- Replace prefilter in the filter container. Check seals on the pump head and the upper edge of the container and clean off any soiling. Replace pump head. Close all four closure clips. Reinsert safety adapter (see step 17).

Turn shut-off lever to the ON position (see step 18) and press suction aid several times (see step 19). Then take the device into operation by plugging it into the mains.

Thorough cleaning

Remove prefilter, lattice screen, filter pad and all three filter inserts from the filter container. Rinse filter media in the filter inserts thoroughly under lukewarm running water until water runs clear.

The white filter pad is for mechanical fine filtering. Since the dirt particles that cling to it can not be completely washed out, the filter pad may only be used once. Use a new filter pad (Order No. 2616805).

The blue filter pad (Order No. 2616801) can be used two or three times more. Wash out gently under running water before reinsertion so that some of the bacteria that have colonised it remain.

Tip: When changing the SUBSTRAT pro, mix approx. one third of the used filter medium with the new material so that the bacteria cultures multiply more rapidly.

Wash out the filter container then push the filter inserts back in. Press the bottom one on to the base runners and make sure the other filter inserts fit tightly. Then lay a new filter pad on the top filter insert. To do this, the handle must be pushed in. Lay the lattice screen on top and insert the prefilter.



Attention: The white filter pad must not be laid beneath the handle of the filter insert.

- Check the upper edge of the filter and the gasket in the upper part of the filter for soiling and damage. If need be, replace the gasket. Spray upper edge of container lightly with EHEIM Care Spray (Order No. 4001000), replace upper part of filter and close all four clips. Place filter in cabinet.
- Reinsert safety adapter (see step 17).

Note: Check all hose connections at regular intervals to make sure they fit properly.

For the container to fill with water, water circulation is reinstated by pressing the primer several times. Then plug into the mains to begin operation.

Note: The priming system only works when the prefilter is empty.

Cleaning the hoses

Clean hoses regularly with an EHEIM universal cleaning brush (Order No. 4006570).

Cleaning the pump chamber

23 Open pump cover by turning the sealing ring and remove.

Note: With these devices, magnetic fields can cause electronic or mechanical disturbance or damage. This can also affect cardiac pacemakers. The safe distances required can be found in the manuals for these medical appliances.



Attention: Due to strong magnetic forces, there is a risk of crushing the fingers when carrying out servicing work. It is best to pull the impeller out with pliers.

- **24** Pull impeller out of the pump chamber.
- 25 Carefully rinse off ceramic shaft (risk of breakage) and clean all parts, including the pump chamber, lubrication channel and pump cover with a soft brush (cleaning set Order No. 4009580).
- Replace all parts and close pump chamber by turning the sealing ring.

Cleaning the indicator

- Remove safety adapter (see step 6). Empty all hosepipes. Then, and only then, open hose guard and remove hoses from safety adapter.
- **26** Press together safety catch on the back of the safety adapter and move indicator lid for ward to remove
- 27 Position the indicator lid further up and use it to lever the indicator housing out of the safety adapter.
- **28** Remove indicator housing.
- 29 Remove brace carefully and take the float and spring out of the indicator housing.

Make sure you do not damage the spring. Clean the indicator housing with cleaning brush Order No. 4009580. Replace float with spring and fasten by means of the brace. Reinsert the indicator housing into the safety adapter and press the indicator lid in until the catch engages.

Gaskets and sealing rings

Spray all gaskets and sealing rings with EHEIM Care Spray Order No. 4001000 each time you clean. This keeps them supple for longer and increases their service life. Be sure to replace any damaged seals (see list of spares).

Troubleshooting

Top part of filter can't be closed

Cause	Solution
Filter inserts have been inserted wrongly	Push filter inserts and prefilter in until they lie flush on top of each other
Filter inserts are too full	Do not overfill filter inserts. If need be, clean the touching surfaces
Partition not fitted properly	Push partition into the filter container until it engages correctly
Gasket not fitted properly	Insert correctly into the groove provided in the upper part of the filter. Check for damage and if necessary replace.

Top of filter leaks

Cause	Solution
Closing clips not closed properly	Close all clips properly
Sealing areas or gasket soiled	Clean seal areas and spray lightly with EHEIM silicon grease spray Order No. 4001000
Sealing ring not fitted, inserted wrongly or damaged	Insert sealing ring correctly or renew

Pump does not work

Cause	Solution
No mains supply	Plug in to mains
Shaft broken	Renew shaft (see list of spares)
Impeller missing or blocked by bits of gravel, shells or similar	Fit impeller, clean pump chamber

Filter performance has greatly deteriorated

Cause	Solution
Safety adapter lever position not correct	Check lever setting and adjust
Safety adapter soiled	Remove safety adapter; open shut-off lever and clean openings with cleaning brush (Order No. 4006570)
Hose installation	Check that there are no kinks or marked narrowing of cross-section.
Hose installation soiled	Clean hose installation at regular intervals by drawing a universal cleaning brush (Order No. 4006570) through the suction channels and pressure channel or suction pipes and nozzle tube.
Only one suction pipe is filled with water	Squeeze the suction pipe that is filled with water together with your fingers until the other suction pipe has filled with water.
Strainer blocked	Remove coarse dirt, clean strainer
Filter media heavily soiled	Clean filter media
Filter media such as EHFIMECH / SUBSTRAT pro filled into a net bag	Never put long-term filter media in net bags or nylon stockings. This leads to a drastic reduction in pump performance within a short time.
Filter media not cleaned properly	When cleaning, remove the filter media from the filter media basket and rinse through with lukewarm water.
Filter media wrongly assembled	Check that filter media have been assembled in the recommended layers for filtering. Fill bottom filter insert to just under edge with EHFIMECH. Fill next two filter inserts with SUBSTRAT, also to just under edge. Never place white filter pad under the handle.

Filter performance has greatly deteriorated

Cause	Solution
Filter pad inserted wrongly	After inserting the top filter insert, push in the handle and lay the white filter pad on top
Filter pad not renewed	Be sure to renew the filter pad each time you clean (Order No. 2616805)
Pump is dirty	Clean pump chamber, cooling and lubrication channel with cleaning brush set (Order No. 4009570) (see chapter on Servicing and Maintenance)
Water is not circulating properly	Take filter into operation by priming (as described in the instructions). Make sure that the water runback (delivery side) is above the surface of the water during filling so that air is optimally bled from the device.

Air in the filter

Cause	Solution
Filter location	The top edge of the pump head should be at least 10 cm beneath the surface of the water. It is better to place it underneath the aquarium.
Air is being sucked in via the hose installation	Check that hose connector is fitted properly, and maybe check whether hoses leak.
Diffuser not installed properly	Do not direct diffuser toward the suction hose.
Additional air supply (membrane pump)	Do not install diffuser in the vicinity of the suction pipe
Filter media heavily soiled	Clean filter media
Filter media not cleaned properly	When cleaning, take filter media out of the filter media basket and rinse through with lukewarm running water.
Filter media such as EHFIMECH / SUBSTRAT pro have been placed in net bags	Never put long-term filter media in net bags or nylon stockings. This leads to a drastic reduction in pump performance within a short time

Shut-off lever on safety adapter is stiff

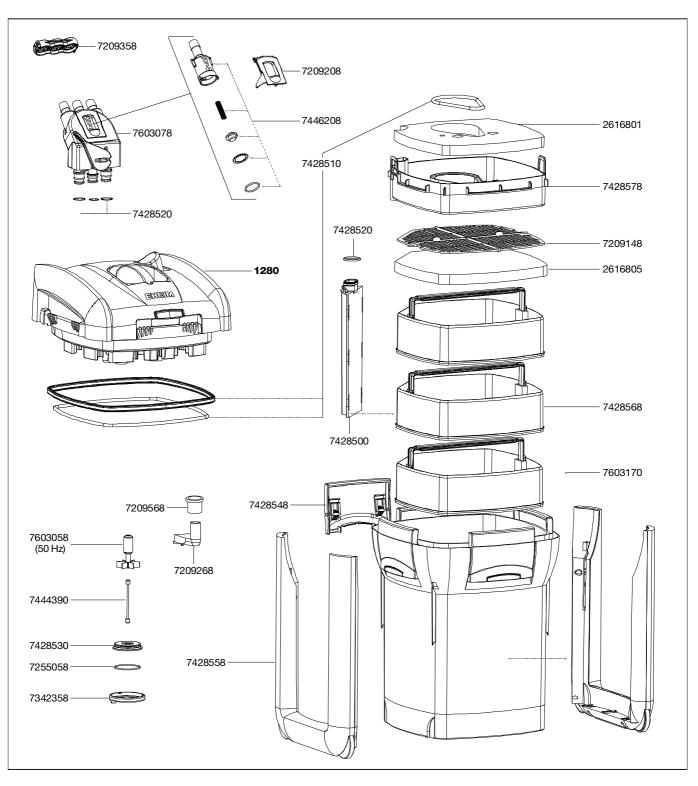
Cause	Solution
Ball valve seals don't slide.	Turn shut-off lever to the OFF position and spray all three ball valves with Care Spray (Order No. 4001000). Move shut-off lever back and forth a few times until it moves easily.

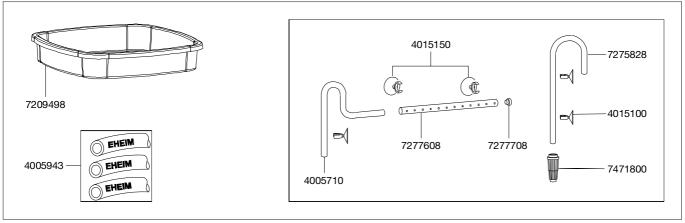
Primer does not work

Cause	Solution	
Shut-off valve flap in prefilter does not close.	Check around the valve flap for soiling and clean if necessary. Check that valve flap fits correctly.	
Prefilter is filled with water	Empty prefilter and repeat priming. Priming only works when the prefilter is empty.	



Typ 2080	100 V / 50 Hz 230 V / 50 Hz 240 V / 50 Hz	110 V / 60 Hz 120 V / 60 Hz 220 V / 60 Hz
Für Aquarien bis For aquariums up to Pour aquariums jusqu'à	1.200 l 270 lmp. gal.	1.200 l 320 US gal.
Pumpenleistung Pump output Débit de la pompe	1.700 l/h 375 lmp. gal./h	1.700 l/h 450 US gal./h
Förderhöhe Hmax Delivery head wat. col. Hauteur de réf. col. d'eau	2,6 m 8' 6"	2,6 m 8' 6"
Leistungsaufnahme Power consumption Consom. courant	30 Watt	30 Watt
Behältervolumen Canister volume Volume de la cuve	25 l 5,5 lmp. gal.	25 l 6,6 US gal.
Filtervolumen Filter volume Volume de filtre	12 I + 1,5 I = 13,5 I 2,6 + 0,4 = 3,0 Imp. gal.	12 I + 1,5 I = 13,5 I 3,2 + 0,4 = 3,6 US gal.
Maße (H x B x T) Dimensions (H x L x W) Dimensions (H x Lar. x Lon.)	567 x 330 x 330 mm 22,3 x 13 x 13 inch	567 x 330 x 330 mm 22,3 x 13 x 13 inch







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