

## IMPORTANT SAFETY INSTRUCTIONS

USA

**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 by 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 and 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.

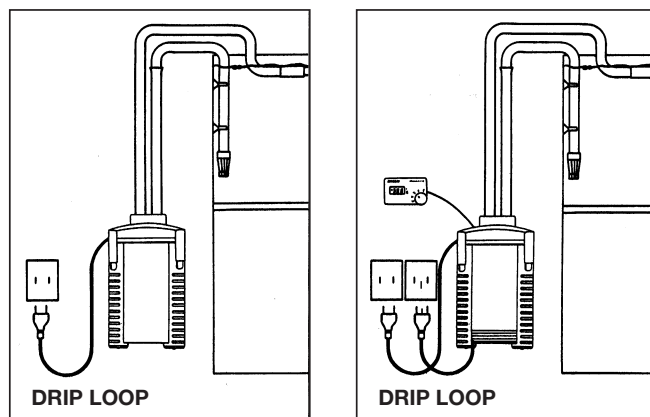
4) Do not operate any appliance if it has a damaged cord or plug, or if it is malfunctioning or has been dropped or damaged in any manner.

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 on to the 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 that part of the cord below the level of the receptacle, or the connector if an extension cord is used, to prevent water traveling along the cord and coming in contact with 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 heaters, 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 to arrange the cord so that it will not be tripped over or pulled.
- k) This appliance has a polarized plug (one blade is wider than the other). As a safety feature, this plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician. Never use with an extension cord unless plug can be fully inserted. Do not attempt to defeat this safety feature.

*Exception: This instruction may be omitted for an appliance that is not provided with a polarized attachment plug.*

l) **"SAVE THESE INSTRUCTIONS".**

**EHEIM professional wet/dry canister filter 2227 and 2229**  
**EHEIM professional wet/dry thermofilter 2327 and 2329**

① Pump head ② Sealing gasket ③ Output pipe ④ Lattice screen ⑤ Media containers ⑥ EZ clips ⑦ Filter canister ⑧ Wet/dry floater compartment ⑨ Sealing ring ⑩ Wet/dry floating control valve ⑪ Locking pins ⑫ Integrated double tap connector ⑬ Hose clamp ⑭ Security outlet pipe ⑮ Spray bar and end cap ⑯ Intake pipe ⑰ Intake strainer ⑱ Foam prefilter ⑲ Intake/outtake for breather tube ⑳ Tubing ㉑ Suction cups with clips ㉒ Key for locking pins ㉓ Vaseline ㉔ Cleaning brush **Thermofilter:** ㉕ Thermostat ㉖ Temperature sensor ㉗ Velcro tape

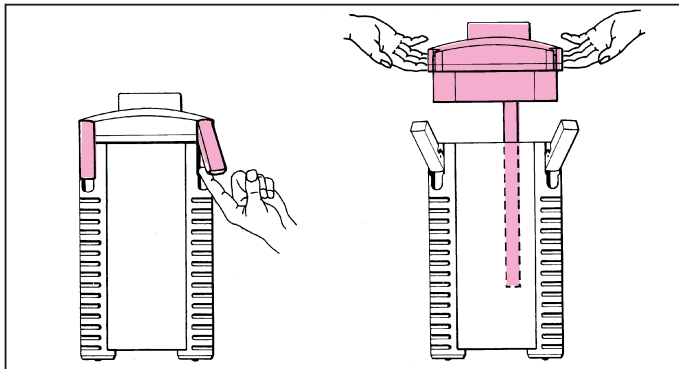
**Attention: 2327 and 2329 thermofilters should only be used for freshwater.**

When unpacking, please check to make sure that all parts have been included.

**Assembly**

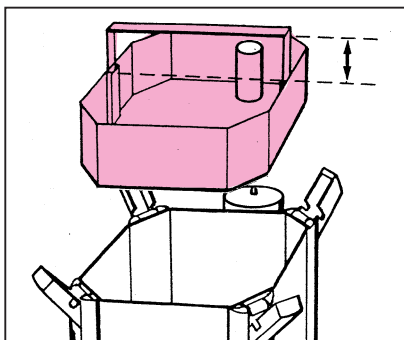
**Attention:** In order to guarantee the synchronized functioning of the wet/dry filter, use only the enclosed original parts. Changes should not be made in the intake or output areas.

Flip out all four EZ clips and push upwards. With the help of the two recessed lid handles, the pump head of the filter can be easily removed.



Take out the lattice screen as well as the individual media containers one at a time.

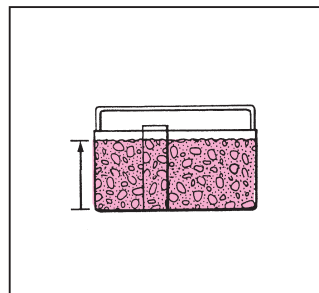
The retractable handles of the media containers can be pulled out in an upward direction.



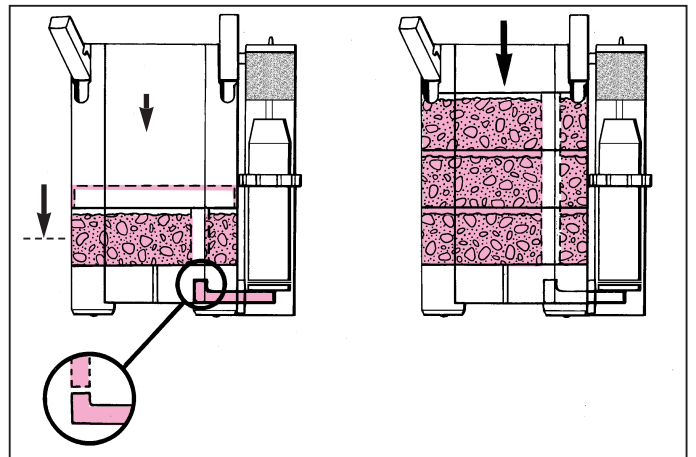
Now fill the media containers to just below the edge, ONLY with original SUBSTRATpro or EHFISUBSTRAT filter media.

**Attention: Do not overfill. Do not clog flow-through pipe. In all media containers only use SUBSTRATpro or EHFISUBSTRAT.**

Then, thoroughly rinse filter media under running water until all cloudiness has disappeared.



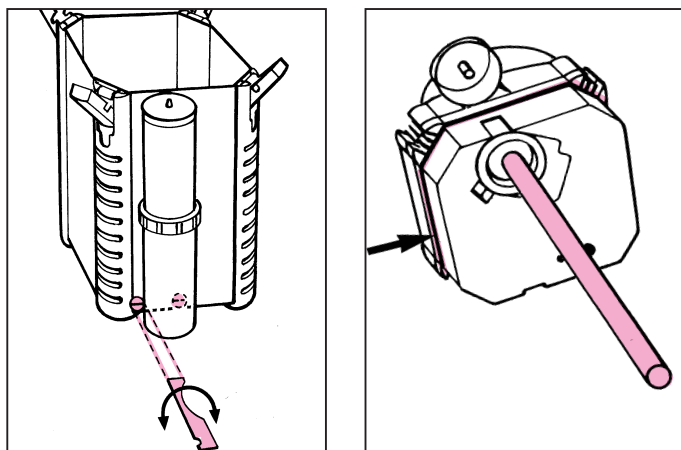
After you have checked to be sure that the wet/dry connection supports are not soiled, put the first media container back into the filter canister. When doing so, be sure that the flow-through opening sits above the wet/dry connection supports. Firmly press the media container downwards until it rests on the support frames. This guarantees a secure seal between media container and filter canister.



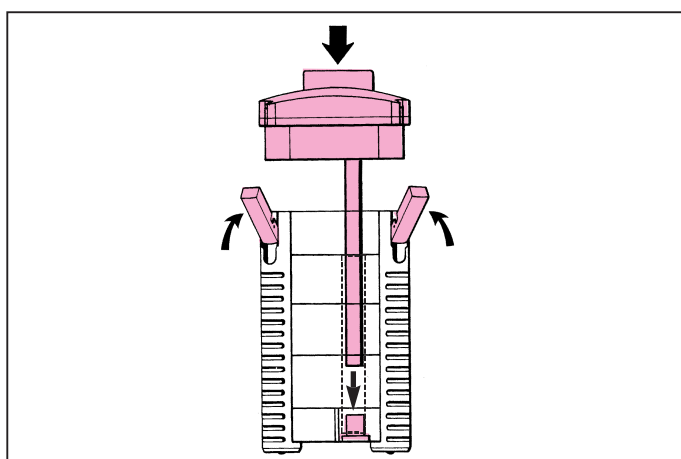
Push in the second (and third) media container in the same manner, so that the pipe openings lie on top of each other. Again lower the retractable handles for each of them and be sure that all of the media containers lie flush on top of each other. Place lattice screen.

Examine the wet/dry floater compartment to make sure it is securely attached to the filter canister: the upper connection must be firmly inserted into the canister; the two lower locking pins must be closed so that the slots are each in a horizontal position (horizontal = closed, vertical = open).

Easy access to the locking pins is provided by the enclosed locking key.

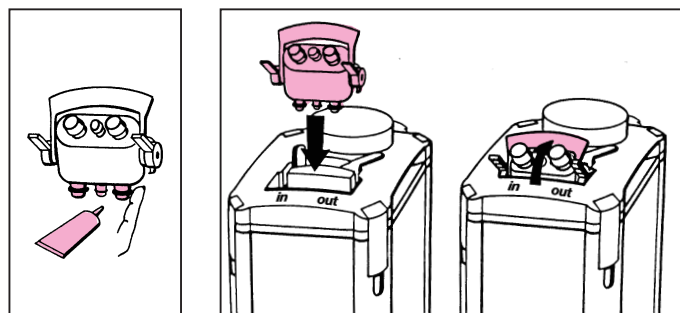


Slightly lubricate the o-ring of the output pipe and insert it firmly into the pump cover. Examine the sealing gasket on the pump head of the filter for cleanliness and proper fit. With the output pipe inserted into the intake of the impeller lid, place the pump head onto the filter canister, so that the output pipe is guided through the openings of the media containers and fits correctly into the wet/dry connection at the bottom of the canister. Close all four EZ clips.



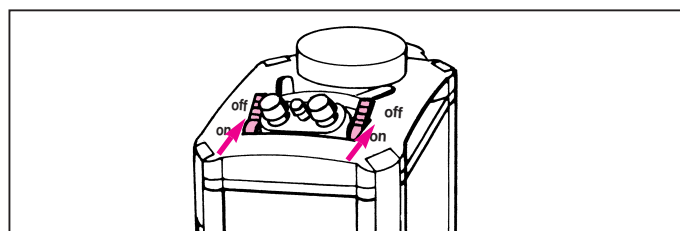
**ATTENTION:** Before the integrated double tap connector is inserted into the pump head of the filter, examine all three o-rings for damage and correct fitting. Lightly grease the o-rings with Vaseline to help installation.

Fully insert the integrated double tap connector, with the locking clamp in an upright position, into the opening on the pump head. To fasten the locking clamp into its sealed position, push the handle downwards.



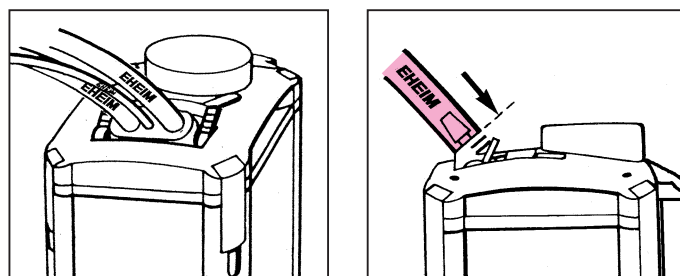
#### Tubing Installation

Shut off the integrated double tap connector by shifting the two levers to the **OFF** position.

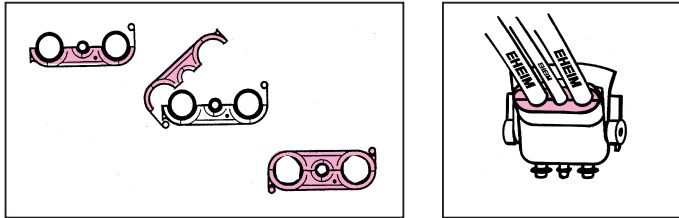


Push the enclosed tubing onto the corresponding tubing openings of the adaptor as far as they will go, starting with the smallest tube diameter. If this is difficult to do, soak the hoses in warm water beforehand to make them softer.

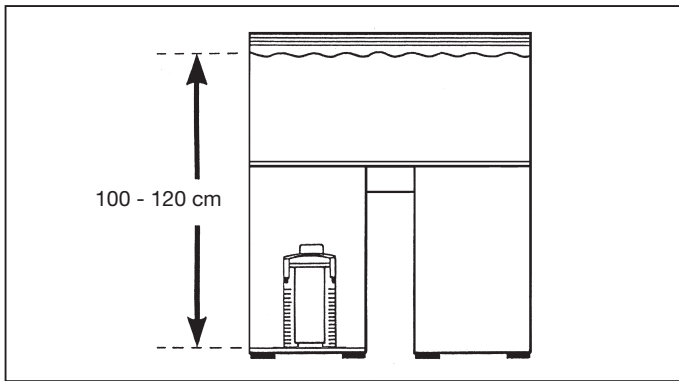
**It is very important to use original EHEIM hoses only.**



Attach the two-part tubing clamp around the installed tubing, hang into the proper position and clip into place.

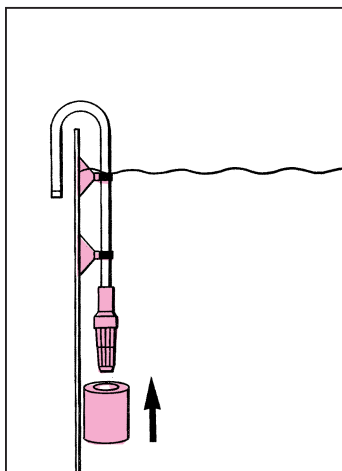


Place the ready to use filter into the lower cabinet and observe the prescribed installation height: The distance between the water surface and the bottom of the filter must be within **100 - 120 cm (3'3" - 3'11")**. This installation height is absolutely vital to guarantee the correct rhythmic functioning of the wet/dry filter.



Fix the intake strainer onto the intake pipe and attach the pipe onto the interior glass of the tank with 2 clips and suction cups.

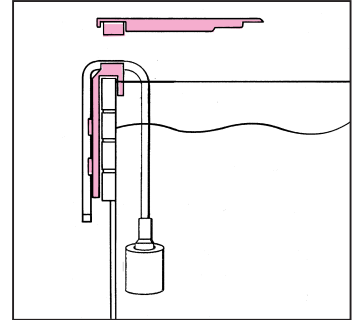
**Place the foam prefilter over the intake strainer.**



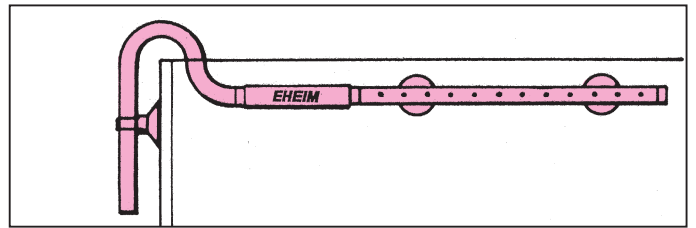
**Attention:** The foam prefilter is only to be used during the running-in period, approx. 6 - 8 weeks. Afterwards the bacteria strains in the filter media take over the biological and mechanical filtration. The foam prefilter should then be removed.

**Note:**

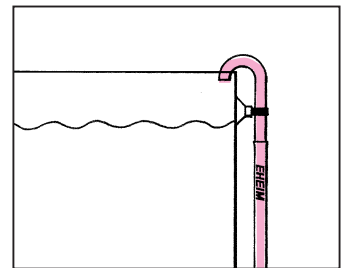
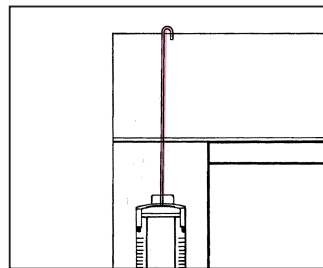
When using with an EHEIM *professional* hood, the intake pipe is simply clipped into place and you don't need the suction cups.



Connect the security outlet pipe and spray bar with a short piece of tubing and install in the aquarium with the help of the clip and suction cup. Close the open side of the spray bar with the enclosed end cap.

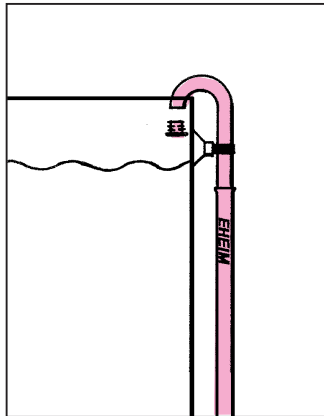


Now direct all three tubes, starting from the filter, through the back wall of the cabinet. First connect the installed breathing tube (9/12 mm), without kinks and slack. Shorten the breathing tube to the required length, connect to the breather pipe and attach to the aquarium wall with the clip and suction cup. Avoid placing the pipe opening too close to the water's surface.



**Important note:** You may use your wet/dry filter as a continuous-flow filter for the short-term treatment with medication and its consequent removal. Extract filter media from the canister and store it in a basin with tank water, and fill the filter entirely with EH-FISYNTH or filter wadding. Close the breather pipe with a pipe cap (no. 7272350).

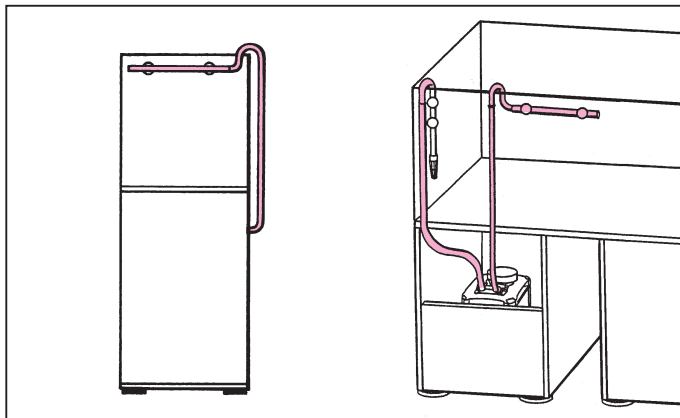
Following medication treatment, filter with carbon (EHFIKTIV) for 4 - 6 days to remove medicaments, then revert to using SUBSTRAT<sub>pro</sub> or EHFISUBSTRAT, remembering to remove the cap from the breather pipe.



Connect the installed intake pipe and spray bar to the respective hoses.

**Attention:**

In order to guarantee the flawless functioning of the wet/dry filter, the two tubes for the intake and output must only be shortened to the same length! Be sure that the tubes are laid out smoothly and that there are no kinks in them.

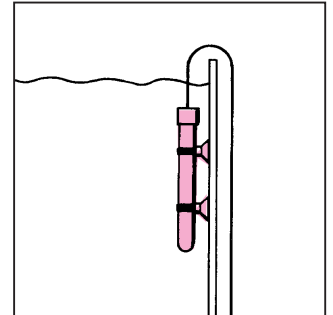


**TIP:** If you place the tubing into warm water for some time beforehand, they will become soft and possible kinks can be easily squeezed out.

**C° Thermofilter**

**Heater Installation**

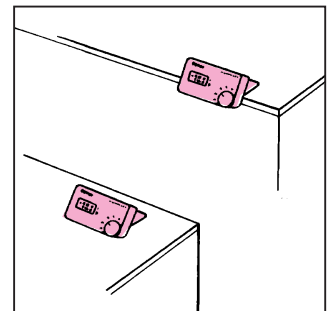
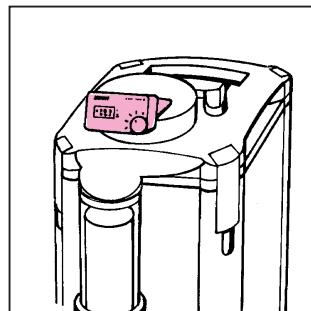
Attach the temperature sensor with 2 clips and suction cups into the tank in such a manner that it is **positioned beneath the surface of the water**.



**Do not install the temperature sensor near the filter outflow.**

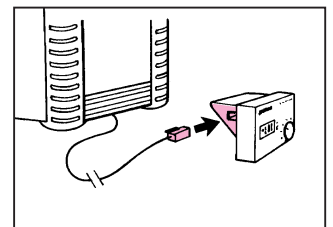
The thermostat can be placed on the aquarium hood or attached with the enclosed Velcro tape to either the aquarium hood or the pump head of the filter.

Protect against splashing water.



Direct the control cable from the filter canister to the thermostat. Connect the plug – you should hear it snap into place.

**Do not yet connect the heater's mains plug to the wall socket.**

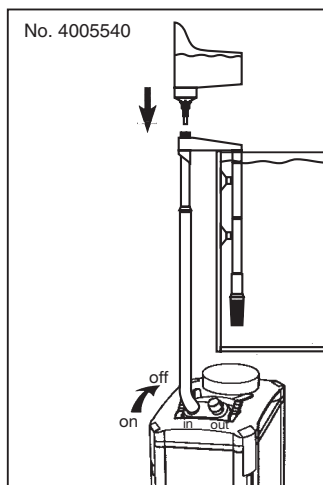
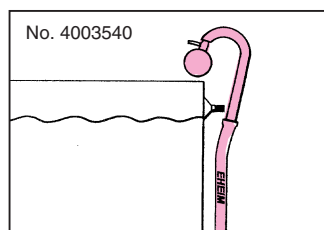
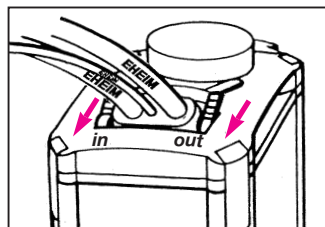


## Setting into operation

**Attention:** Do not fill the aquarium to its maximum height since the water level varies through the change of water level in the filter.

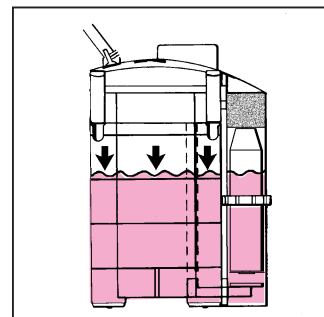
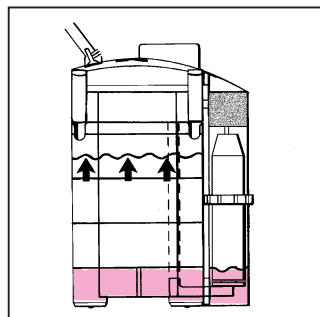
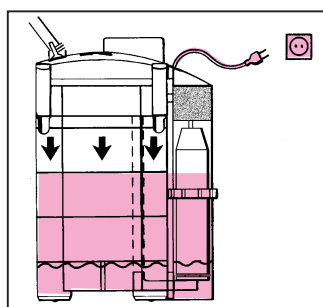
Open the tap connector of the intake pipe (**IN**) and establish the syphon. Alternatively use the EHEIM suction device (order no. 4003540) or the priming aid (order no. 4005540, ø 16 mm).

The filter will then fill up with water. After that, open the tap connector of the outlet pipe (**OUT**).



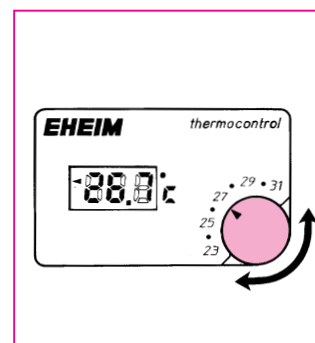
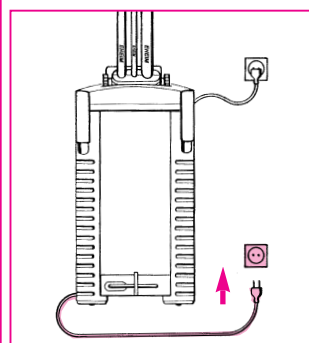
Set the filter into operation by plugging in the mains socket. As soon as the pump has started up, the water level in the filter canister must sink down to the lower switch point.

Once this point has been reached, the floating control valve will automatically close the suction intake, and the filter canister will fill up again with water. Meanwhile, a small, continuously filtered amount of water will be directed back into the aquarium through the bypass opening, so as to keep the impeller lubricated. The water level inside the floater compartment does not rise. Only when the upper filter media container is filled with water, does the floater compartment get filled with water through a slit in the floating control valve; now the latter will open the suction intake and the filter empties again.



## °C Thermofilter

**Attention:** Only when the filter is working smoothly should the heater's mains plug be connected to the wall socket. Never operate the heater when dry.



The display on the thermostat shows the actual water temperature in the aquarium. Use the adjusting knob to select the temperature you desire (e.g. 27°C). A symbol (◀) indicates when the heater is in operation. If the symbol goes off, the set temperature has been reached and the heater is automatically switched off. If the temperature in the tank sinks below the set temperature, the heater automatically turns itself on again. By slightly turning the adjusting knob, a precise adjustment can be achieved.

**Attention:** When first installing the filter or readjusting the temperature, the temperature shown in the display will take some time to reach the required value. The ambient temperature is also significant for time delays.

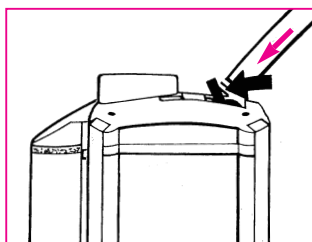
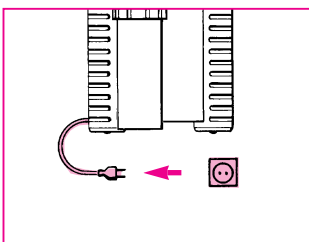
Should the power supply be cut off, the value indicated on the display changes and the heater stops working. When the power is restored the heater works normally.



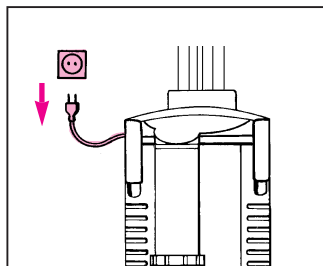
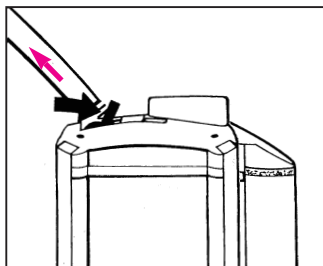
## Maintenance and Servicing

### Thermofilter

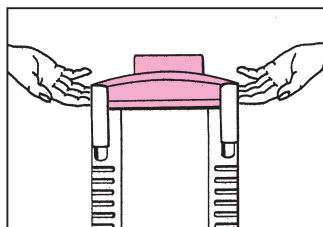
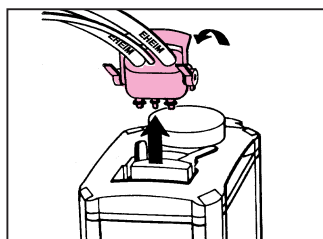
**First pull out the heater's mains plug.** Close the tap lever on the **intake side (IN)** of the integrated double tap connector, so that the filter empties itself.



As soon as the pump loudly sucks in air, close the tap lever on the **output side (OUT)** of the integrated double tap connector and **pull the mains plug out of the socket.**

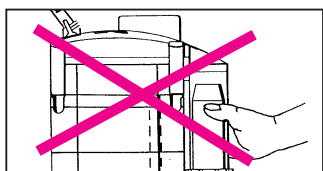


Swing the locking clamp upwards and then remove the double tap connector from the pump head. Extract the filter out of the cabinet by using the recessed handles.

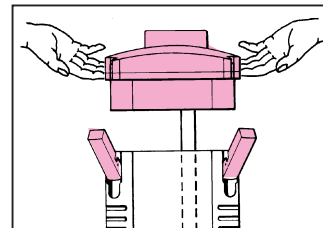


#### Attention:

**Do not pull on the wet/dry floater compartment.**

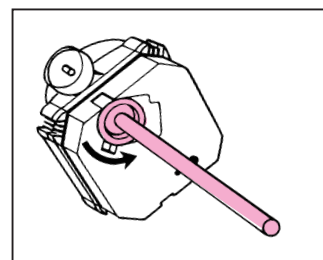


Open all four EZ clips and remove the pump head from the filter.



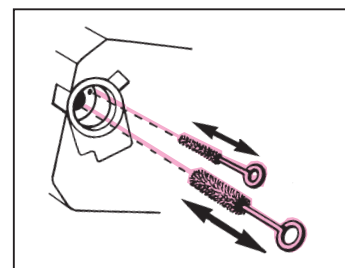
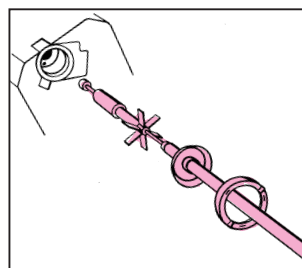
In order to clean the pump chamber, open the sealing ring of the pump head by turning it anticlockwise.

Take off the pump cover and then remove the impeller and shaft.

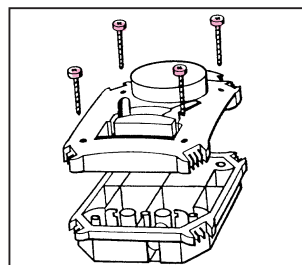


Thoroughly clean pump parts, impeller chamber and lubrication channel with the EHEIM cleaning set (order no. 4009580.)

Carefully rinse off the shaft (risk of breakage!), then put the impeller back together again and insert into proper position.



Pay attention to the proper fit of the shaft bushings, pump cover and sealing ring. Then lock the pump with the sealing ring.



#### TIP:

If cleaning water should get into the cover of the filter's pump head, the cover can be unscrewed and wiped dry with a cloth.

#### Filter media:

Remove the lattice screen as well as the filter media containers from the filter canister.

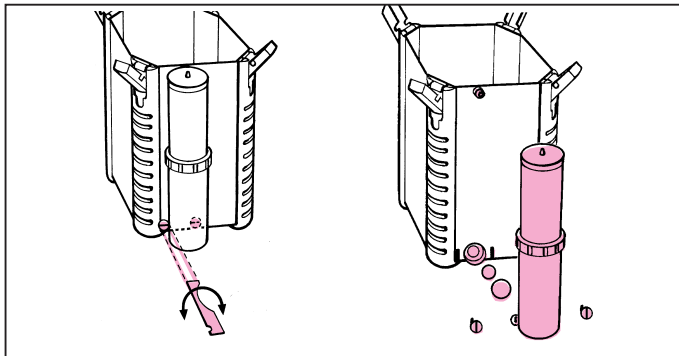
Thoroughly wash out the SUBSTRAT<sub>pro</sub> or EHFISUBSTRAT filter media with used aquarium water – until no more clouding can be seen.

#### TIP:

**When renewing SUBSTRAT<sub>pro</sub> or EHFISUBSTRAT (the fine pores get clogged up with time), retain at least 1/3 of used filter medium and mix with new material, to speed-up bacteria recolonization.**

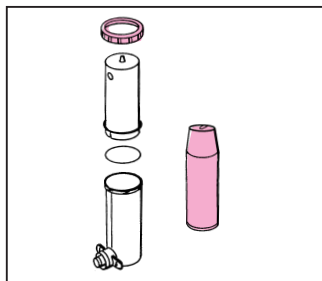
Now remove the wet/dry floater compartment by opening the two locking pins with the locking key, so that the slots are in a vertical position.

Remove the wet/dry floater compartment and clean the inlet aperture and both o-rings.



Open the locking ring of the wet/dry floater compartment in the direction indicated, remove floating control valve and carefully clean with a soft sponge.

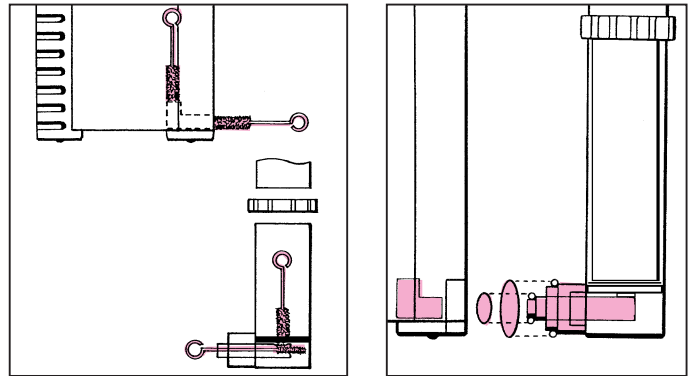
Clean all parts and wash out the filter canister.



#### Thermofilter

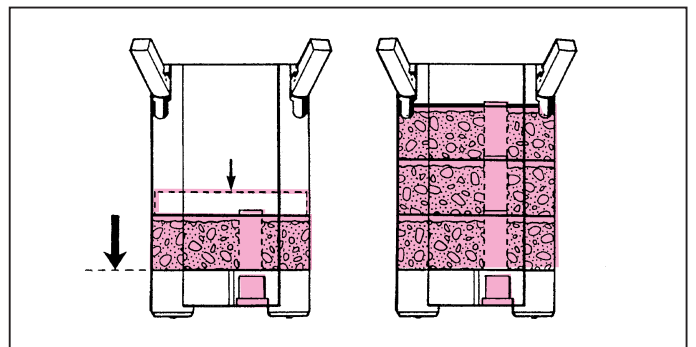
**Wash out the filter canister. Periodically clean the heating element from sludge. Do not bend the heating element! Do not submerge filter canister underwater. Protect the heater's electrics from splashing water.**

Clean the connecting supports on the container and the floater compartment (including the bypass opening) with a brush. Reassemble the wet/dry floater compartment and attach it to the filter canister. Take care that the sealing rings are correctly positioned.



Place the first media container back into the canister in such a manner that the flow-through opening sits above the connection outlet which communicates with the wet/dry floater compartment. Press the container down to the support frame in order to guarantee a good seal with the filter canister.

Then push in the second (and third) media container. The flow-through openings must lie on top of each other. Be sure that the media containers have a flush fit. Place the lattice screen.



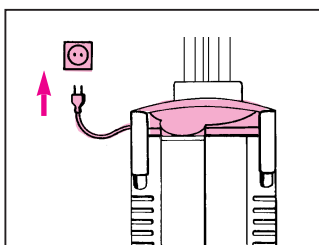
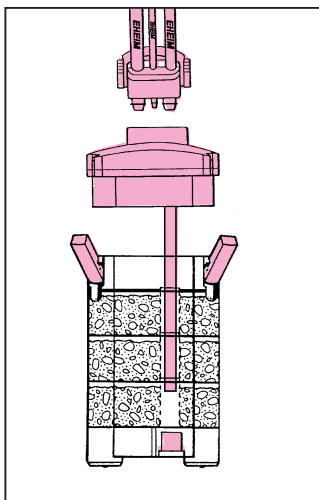
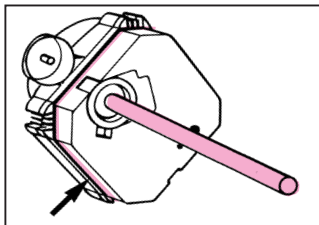


Make sure that the output pipe is inserted into the intake of the impeller lid, and that the o-ring is clean and correctly fitted.

Lightly lubricate the sealing gasket on the pump head of the filter and the o-ring of the double tap with vaseline - then place the pump head on the filter canister, close the clips and put the filter into the cabinet.

Examine all three o-rings on the double tap connector for damage and correct fitting and lightly grease them with Vaseline; insert and lock in place. After both levers of the integrated double tap connector have been placed in the open position (**ON** position) the filter will automatically fill up with water and be ready for operation.

Set the filter into operation by connecting the **mains plug of the pump head to the wall socket**.

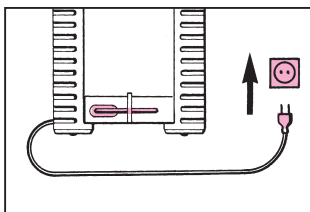


**Note:** All hose connections must be checked at regular intervals for correct fitting.

## C° Thermofilter

### ATTENTION:

Only plug in the heater's mains plug when the filter is working smoothly. Never operate the heater when dry.



 Only for indoor use.

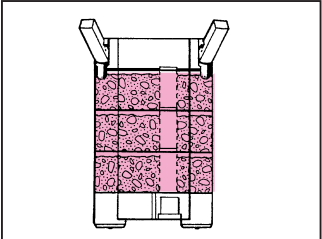
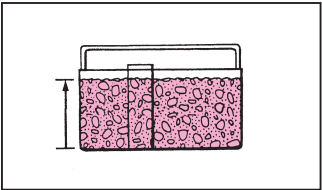
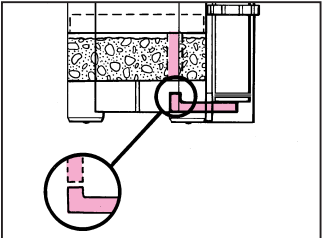
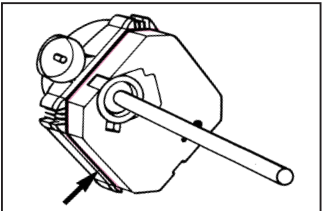
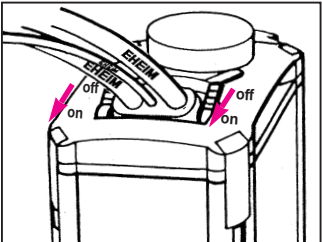
Before placing your hands in the aquarium, ensure that all electrical appliances have been switched off at the mains. By thermofilters always disconnect the heater plug first.

**2227/2229:** The mains cable cannot be replaced; if the cable is damaged, the device should no longer be used.

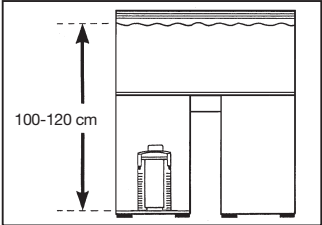
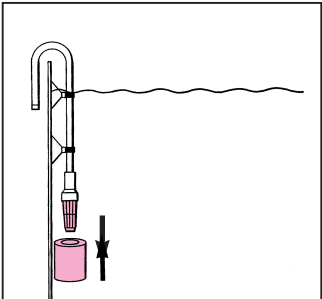
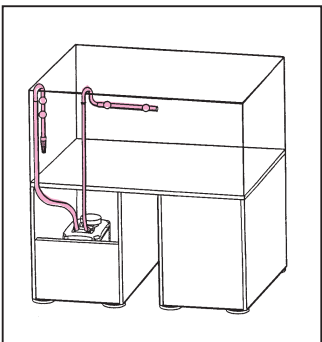
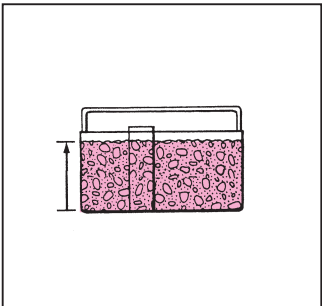
**2327/2329:** The device can only be serviced by authorized personnel. Contact your nearest pet shop or EHEIM service centre. Use only permitted with an earthed socket outlet.

**Filter must always be operated in an upright position only.**

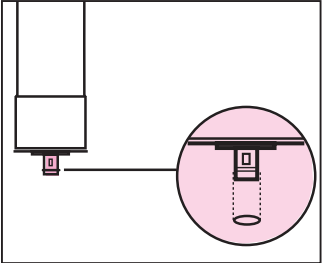
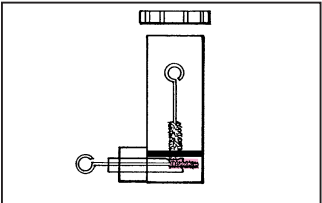
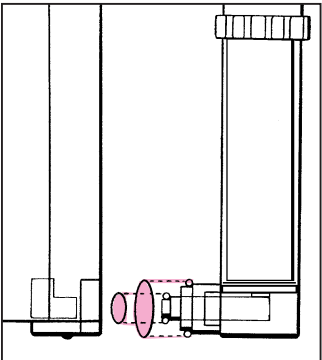
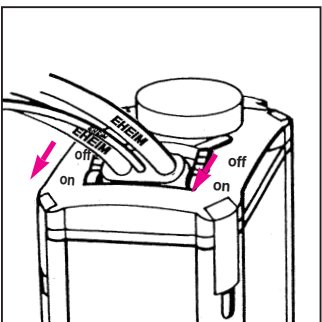
## What to do when ...

Problem	Cause	Remedy	
<b>Filter cannot be closed</b>	Improper installation of media containers.	Slide in media containers so that the flow-through openings are positioned on top of each other.	
	Media containers overfilled.	Use only SUBSTRAT <sup>pro</sup> or EHFISUBSTRAT as filter media and do not overfill media containers. Check the adjoining surfaces of the containers for soiling.	
	Flow-through pipe in filter canister soiled.	Clean flow-through pipe.	
	Sealing gasket not properly installed.	Insert sealing gasket into the groove provided.	
<b>Filter does not fill up, no wet/dry function</b>	Intake tap on integrated double tap connector is still closed or not completely open.	Open intake tap as far as it will go.	
	Intake tube bent or dirty.	Lay out tube without kinks. Clean tubes.	

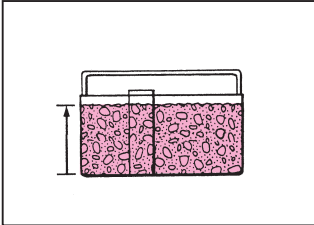
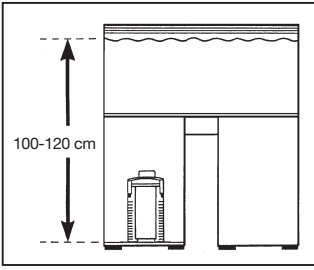
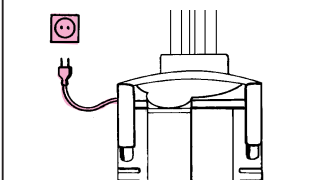
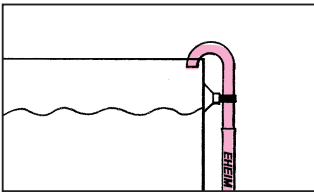
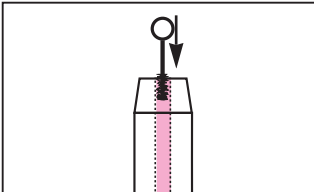
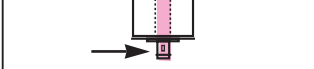
## What to do when ...

Problem	Cause	Remedy	
Filter does not fill up, no wet/dry function	Installation height insufficient.	Installation height must be between 100 and 120 cm (3' 3" and 3' 11").	
	Intake strainer soiled.	Clean intake strainer.	
	Foam prefilter soiled.	Clean foam prefilter. Remove after filter running-in period (6 - 8 weeks).	
	Wrong hoses length, wrong accessories attached.	Only use original EHEIM hoses in even lengths!  Do not attach any additional accessories to the provided hoses.	
	Wrong filter media.	Only use SUBSTRAT <sup>pro</sup> or EHFISUBSTRAT as filter media.  Do not overfill media containers.  Do not use filter cotton wadding, filter pads, plastic media, ceramic, lava, or peat only use carbon for short-term specific filtration.	

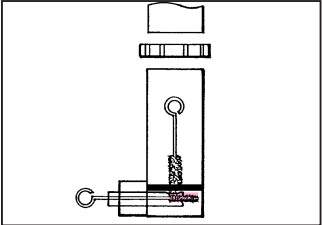
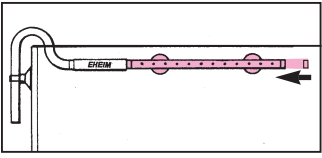
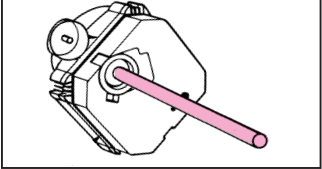
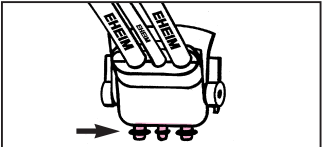
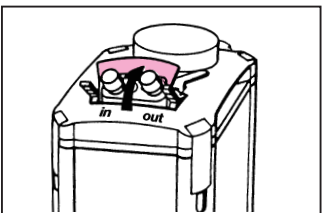
## What to do when ...

Problem	Cause	Remedy	
<b>Filter does not fill up, no wet/dry function</b>	Worn out or wrongly installed o-ring on floating control valve.	Properly install o-ring, replace if necessary.	
	Collar and disk on floating control valve soiled.	Clean collar and disk.	
	Bypass aperture in wet/dry control mechanism soiled.	Clean bypass.	
	O-ring on small support worn out, not installed or improperly installed.	Properly install o-ring, replace if necessary.	
	Filter in slanted position.	Place filter in vertical position.	
<b>Filter does not empty, no wet/dry function</b>	Output tap on integrated double tap connector is closed or not completely open.	Open output tap completely.	
	Outlet tube is bent or soiled.	Lay out tube without kinks. Clean tubing.	

## What to do when ...

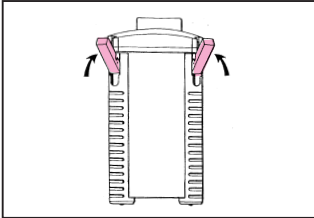
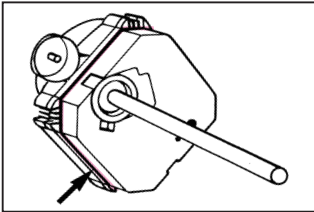
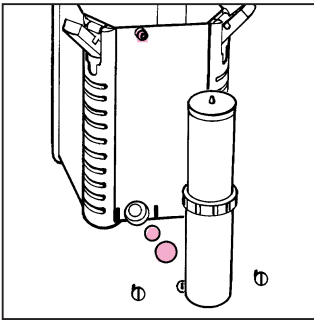
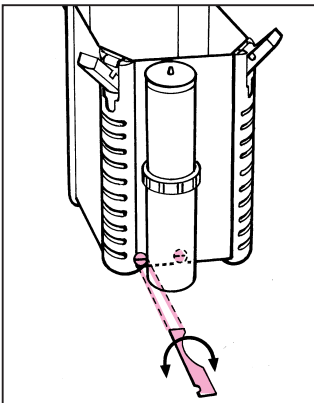
Problem	Cause	Remedy	
<b>Filter does not empty, no wet/dry function</b>	Wrong hose length, wrong accessories attached.	Only use original EHEIM hoses in even lengths! Do not attach any additional accessories to the provided hoses.	
	Wrong filter media filled.	Only use SUBSTRAT <sup>pro</sup> or EHFISUBSTRAT as filter media. Do not overfill media containers. Do not use filter cotton wadding, filter pads, plastic media, ceramic, lava, or peat only use carbon for short-term specific filtration.	
	Installation height excessive.	Installation height must be between 100 and 120 cm (3' 3" and 3' 11").	
	Air in the pump chamber.	Open intake and output taps, pull out mains plug and wait approx. 1 min., until the pump chamber has filled with water. Plug in mains plug again.	
	Aeration and breather tube bent or soiled.	Lay out hoses without kinks or clean them.	
	Opening of breather pipe is too near or below water surface.	Place well above water level.	
	Hole and/or rising pipe on the floating control valve soiled.	Clean hole and/or rising pipe.	

## What to do when ...

Problem	Cause	Remedy	
<b>Filter does not empty, no wet/dry function</b>	Bypass hole in wet/dry control mechanism soiled.	Clean bypass.	
	Filter in slanted position.	Place filter in vertical position.	
	Spray bar soiled.	Clean spray bar.	
	End cap on spray bar missing.	Insert end cap.	
	Outlet pipe in pump lid does not fit correctly. O-ring on outlet tube is broken. Cleaning plug in pump head is missing.	Properly install outlet pipe.  Replace with new o-ring (order no. 7342238). If misplaced, fit a new one (order no. 7343400).	
<b>Filter leaks at adaptor</b>	Sealing surface or o-rings soiled.	Clean sealing surface and/or o-rings.	
	O-rings not installed or damaged.	Correctly install or replace o-rings.	
	Locking lever not completely closed.	Close locking lever as far as it will go.	
	Hoses not correctly connected.	Push connection hoses as far as they will go and secure with hose clamp.	



## What to do when ...

Problem	Cause	Remedy	
<b>Filter leaks at pump head of filter</b>	Not all EZ clips are closed.	Properly close all EZ clips.	
	Sealing surfaces or sealing gasket is soiled.	Clean sealing surfaces.	
<b>Filter leaks at wet/dry control</b>	Sealing surfaces of o-rings soiled.	Clean sealing surfaces.	
	O-rings not installed or improperly installed.	Properly install o-rings.	
	O-rings of wet/dry floater compartment missing, damaged or soiled.	Clean or replace o-rings.	
	Locking pin not closed.	Close locking pin with locking key so that the slots are in a horizontal position.	