Turn the **screw nuts (E)** on the **hose connecting device (U)** clockwise until they will not turn anymore. Then push the intake and outlet tubes onto the nozzles, making sure that the intake tube is on the side labeled "IN" and the outlet tube is on the side labeled "OUT." Lock the tubes in place by turning the screw nuts counterclockwise back over the tubes.



STARTING AND PRIMING THE FILTER

Place the filter on a flat surface near the aquarium, making sure that the hoses are not kinked. Do not lay the filter on its side.

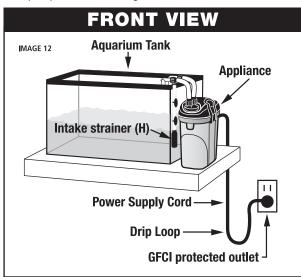
Make sure that the filter canister is completely full of water, and that the hoses are connected properly to avoid leaks.

Check to make sure that the orange flow control adjustment devices (on the intake and outlet **hard elbow units (I)**) are set to **"MAX."** Be sure that the water level in the tank is at least high enough to completely cover the **intake strainer (H).**

Note: The lower the water level is in the tank, the harder it is for the filter to start.

USE DRIP LOOP

Plug the filter into a GFCI protected outlet (Ground Fault Circuit Interrupter) to prevent against shock. Make sure that the cord forms a "drip loop" as shown in image 12.



If everything is connected properly, the filter will begin to draw water up the intake tube and water will begin flowing out of the spray bar (or flow diverter). You may hear some noises upon startup that will disappear after all of the air is out of the system. It may take a few minutes for all of the air to exit the system before the filter flows at maximum capacity.

If the filter has trouble starting, unplug it and check to make sure that the canister is completely full of water. If not completely full, remove the fill cap and add more dechlorinated water. Replace the cap and plug the filter back into the outlet. If the filter still has trouble starting, contact customer service.

MAINTENANCE

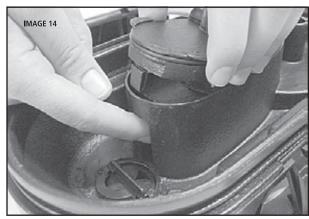
Follow these instructions carefully for maintenance procedures including; filter media replacement, cleaning, etc.
Always disconnect all electrical appliances, including this filter, before placing your hands in water.

Rotate the hose **connecting device (U)** ¼ turn to the "UNLOCK" position and remove it from the **filter head (K)** by pulling up on the device as shown in image 13. This will allow you to leave the intake/outlet hoses in place, while moving the filter to a suitable location for cleaning.



Remove the **filter head (K)** by pulling outward on the clips as described in the filter assembly section.

Remove the **intake strainer (H)** from the **impeller cover (C)**, and remove the impeller cover from the **filter head (K)** by pressing the tab and pulling as shown in image 14.



Remove the **impeller (D)** by pulling on the metal shaft.

Rinse the impeller, impeller cover, intake strainer, filter sponges, filter canister, and the impeller housing area (located on the underside of the filter head). Carefully rinse the ceramic filter media under a gentle stream of lukewarm water to avoid removing beneficial bacteria.

Reassemble all components, making sure that the **air vent tube (T)** is positioned in the upper side of the filter head as shown in image 6 (not pointed down toward sponges/filter media).

Note: This air vent tube discharges air from the upper inside portion of the filter head. Noise will be heard as air is discharged, and may last a few minutes, depending on the amount of air inside the chamber.

Reattach the assembled filter head to the filter canister by the method described in the filter assembly section, making sure that the filter head is oriented correctly (fill cap should be above the side with the ceramic media).

Reattach the hose connecting device to the filter head by pressing it onto the filter head, and rotating ¼ turn clockwise as shown by the arrows next to the word "LOCK."

Refill the filter canister by removing the filter cap, and then replace the cap.

Plug the filter in. The filter should resume normal operation after all air has been discharged.

NOTE: Replacement parts, including sponges, filter media, impellers, etc., can be ordered from the "STORE" section of our website at www.zoomed.com, or by contacting customer service.

VERY 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 by yourself; return the appliance to an authorized service facility for service or discard the appliance:
- If the appliance falls into the water, **DON'T** reach for it! Disconnect the fuse or circuit breaker that supplies power to the appliance, then unplug it and retrieve it. If electrical components of the appliance get wet, unplug the appliance immediately.
- Carefully examine the appliance after installation. It should not be plugged in if there is water on parts not intended to be wet.
- 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.
- 4. To avoid the possibility of the appliance plug or receptacle getting wet, position tank/aquarium stand and tank to one side of a wall-mounted receptacle to prevent water from dripping onto the receptacle or plug. A "drip loop," shown in image 12, 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 from traveling along the cord and coming in contact with the receptacle. If the plug or receptacle 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. Do not install or store the appliance where it will be exposed to the weather or to temperatures below freezing.
- g) For indoor use only, for aquarium/vivarium use only.
- 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) KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE

WARRANTY

This unit has been manufactured according to UL 1018 safety standards, and with the highest quality materials and accuracy. This product is guaranteed against manufacturing defects for 12 months from the date of purchase. In the unlikely event of a failure, the unit should be returned to ZOO MED within one year of purchase, together with the original sales receipt. It is important that the unit is not tampered with. Please note; this guarantee is not valid if the defects are caused by tampering, negligence, misuse, or by not observing the safety warnings. ZOO MED assumes no responsibility for indirect damage that may result from the use of this appliance.



Zoo Med Laboratories, Inc. 3650 Sacramento Drive San Luis Obispo, CA 93401 USA Ph: (888) 496-6633

www.zoomed.com

MACRO.75

EXTERNAL CANISTER FILTER for Aquariums & Nano Tanks

INSTRUCTIONS for TCN-36

External canister filter for aquariums up to 75 gallons (284 liters) in size.

Slimline design - fits in tight spaces.

GALLONS (284 liters)

For Aquariums

Double filtering system with internal biological recirculation.



Easy priming feature.

Comes complete with spray bar, mechanical filter sponge, bio ceramic media and carbon.

ASSEMBLY INSTRUCTIONS

Remove contents from box and inspect to make sure that there are no missing parts (see parts diagram). Refer to the parts diagram to identify parts mentioned in the following assembly instructions.

PARTS LIST			
LETTER CODE	DESCRIPTION	QTY.	PART NO.
Α	FILTER CANISTER	1	PTC-73
B1	COARSE PRE-FILTER SPONGE	1	PTC-71
B2	FINE MECHANICAL FILTER SPONGE	1	PTC-72
С	IMPELLER COVER	1	PTC-53
D	IMPELLER	1	PTC-74
E	SCREW NUT	4	PTC-56
F	FILL CAP & O-RING	1	PTC-06
G	CLIP AND SUCTION CUP	5	PTC-57
н	INTAKE STRAINER	2	PTC-37
ı	HARD ELBOW UNIT	2	PTC-58
J	CLEAR PLASTIC PLUG	1	PTC-59
К	FILTER HEAD	1	PTC-77
L	FLOW DIVERTER	1	PTC-61
М	ELBOW	1	PTC-62
N	INTAKE TUBE (RIGID)	1	PTC-63
0	FILTER HEAD O-RING	1	PTC-64
Р	SPRAY BAR (RIGID)	2	PTC-65
Q	CERAMIC MEDIA	3	PTC-54
R	INTAKE/OUTLET TUBING (FLEXIBLE)	2	PTC-66
s	CHAMBER DIVIDER	2	PTC-75
Т	AIR VENT TUBE	1	PTC-68
U	HOSE CONNECTING DEVICE	1	PTC-69
v	INTAKE TUBE ADAPTER	1	PTC-70
w	RUBBER FEET	4	PTC-21
х	CARBON BAGS	2	PTC-18
Υ	SPRAY BAR CONNECTOR	1	PTC-76

INTAKE UNIT ASSEMBLY

Attach the adapter (V) to the intake strainer (H), and insert one end of the intake tube (N) into the end of the adapter (V). The length of the intake tube assembly is adjustable and can be shortened by pushing the intake tube further into the intake tube adapter.

Mount the two clips to the suction cups (G), and attach the clips to the intake tube (N).

Thread the screw nut (E) onto the hard elbow unit (I), and insert the other end of the intake tube (N) into the hard elbow unit (I) as shown in the parts diagram.

NOTE: The hard elbow units (I) contain an orange flow control valve. These should be set at "MAX" during initial startup.



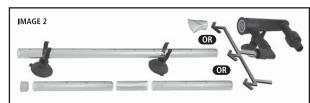
OUTLET UNIT ASSEMBLY

Mount the elbow (M) onto the other hard elbow unit (I), and assemble the spray bar (P), or the flow diverter (L) according to your needs.

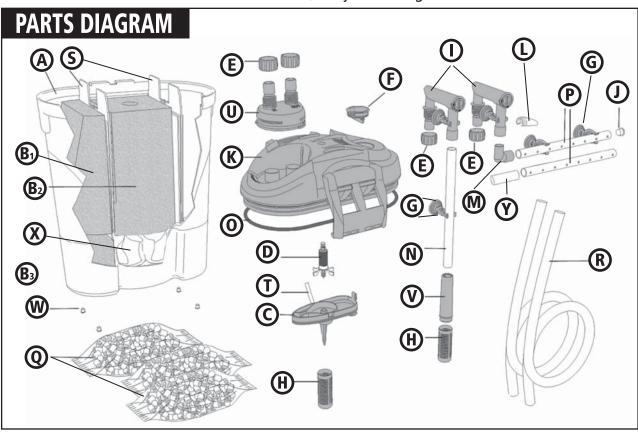
If using the **spray bar (P)**, insert the **clear plastic plug (J)** into the end of the spray bar, and attach the bar securely to the tank wall with two clips and **suction cups (G)**.

Attach the remaining clip and **suction cup (G)** to the **hard elbow unit (I)**, allowing the hard elbow unit on the outlet side to be secured to the tank.

Finally, thread the remaining screw nuts (E) onto the outlet side hard elbow unit (I), and also to the IN/OUT nozzles of the hose connecting device (U).



Replacement parts are available online by visiting the "STORE" section of our website at **www.zoomed.com**, or by contacting customer service.



FILTER ASSEMBLY

Insert the four rubber feet (W) into the holes on the bottom of the filter canister (A), as shown in image 3.



Open the filter by releasing the clips on the **filter head (K)** from above and pulling them outward. When the clips are pulled completely outward, the filter head will lift off of the **filter canister (A)**.

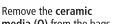


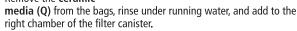
The filter comes with the activated carbon and all sponges preinstalled in the filter canister. See image 5 showing the correct placement of the sponges, activated carbon, and ceramic media in the filter canister.

(A) Filter Canister

(S) Chamber Dividers

Remove the fine mechanical filter sponge (B₂) and activated carbon bags (X) from the center chamber of the filter canister (A). Rinse the activated carbon bag under running water. Check to make sure that the two chamber dividers (S) are installed and place the activated carbon bag in the bottom of the center chamber. Insert the fine mechanical filter sponge (B2) into the center chamber above the activated carbon bag. The hole in the center of the sponge must face up. NOTE: Do not open the activated carbon bag.





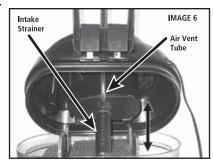
(B2) Fine Mechanical

Filter Sponge

NOTE: Do not overfill with ceramic media or you will not be able to reattach the filter head. Save any remaining ceramic media for future use

Install an intake strainer (H) on the impeller cover (C) and reattach the filter head (K). Make sure that the fill cap (F) is above the side with the ceramic media (Q), and the hose connecting device (U) is above the side with the coarse pre-filter sponge (B₁). Make sure that the air vent tube (T) is positioned in the upper side of the filter head as shown (not pointed down toward sponges/filter media).

Note: This air vent tube discharges air from the upper inside portion of the filter head. Noise will be heard as air is discharged, and may last a few minutes, depending on the amount of air inside the chamber.



After pressing the filter head back onto the filter canister (A), latch the two clips by hooking them onto the filter canister and firmly pressing inward until you hear them "snap" into place. Check to make sure that the clips are securely latched over the ridges on the filter head by gently pulling outward. If the clips are securely latched on the ridges, they will not IMAGE 7 easily pull away from the filter head. Unscrew the fill cap (F) by turning it counter clockwise as shown by the arrows on the cap. Fill the canister completely with

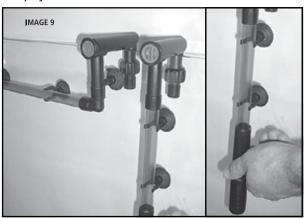
Replace the fill cap, making sure that it locks in place and that the cap is in the locked position as shown in image 8. If not locked in place, your filter may not operate properly.

dechlorinated

water. See image 7.



Clean the wall of your aquarium and attach the intake and outlet units as shown in image 9. **Note:** The photo shows the spray bar on the intake unit, but you may use the spray diverter instead of the spray bar if desired.



Push the intake and **outlet tubing (R)** onto the **hard elbow units** (I) and lock them with the screw nuts as shown in image 10.

