

Operation Manual for the cooling unit



TITAN 150, TITAN 250, TITAN 500 TITAN 1500 and TITAN 2000



With the purchase of an **AQUA MEDIC** cooling unit you have selected a top quality product. It has been specifically designed for the cooling of closed water cycles like fresh and sea water aquaria.

The TITAN coolers are supplied with heat exchanger made from sea water proof Titanium steel.

These heat exchangers are corrosion resistant and free of contaminations. The cooling units can be used in fresh and sea water as well as in various chemicals.

The coolers have a one-phase cooling system containing the cooling medium R 134 a (FCKW-free). They work with capillary injection as control system.

1. Product description

The **AQUA MEDIC** cooling units TITAN 150, TITAN 250, TITAN 500, TITAN 1500 and Titan 2000 are supplied with

- a temperature computer with digital display,
- connections for water in- and outlet,
- a main switch and a fuse, to be changed from outside
- a solid cover made of plastic and metal

2. Set-up and installation

1. **The cooling unit must be set up at a well-aerated place.** The complete heat taken out of the water by the unit and the waste heat of the unit itself are emitted at the unit to the surrounding air. A build-up of heat directly at the cooling unit leads to a heavily reduced cooling power output. Therefore, a sufficient ventilation is essential.

The environmental temperature should not exceed 35° C.

2. The cooling unit has to be connected at the connecting pieces to a closed water cycle. It is recommended to place the unit below the water surface.

3. Switch the water flow on. **It is important that the water flows continuously through the cooler.** Because the temperature-sensor is placed within the unit, the heat exchanger cannot freeze in case of a failure of water supply.

The minimum flow rates are:

TITAN 150/250: minimum 200, maximum 800 litres/h

TITAN 500: minimum 500, maximum 2000 litres/h

TITAN 1500: minimum 800, maximum 2500 litres/h

TITAN 2000: minimum 2000, maximum 4000 litres/h

4. Before starting, the cooler should stand up straight for at least 1 hour. Connect it to 230 V power source and switch the unit on (plug in the mains and switch on) Now, the actual water temperature is shown on the display. Because the thermo sensor is placed in the water inlet, always a temperature which corresponds to the temperature in the tank is shown.

3. Temperature control

The cooling unit of the TITAN Series are supplied with a digital temperature controller.

programming: The display shows the actual temperature of the water.

Check the set point: Press the „SET“ button (short). Now the set point is shown in the display and a LE (Up, left) flashes.. After some seconds, the unit switches back to the actual temperature.

Adjustment of the set point: Press the „SET“- button for approx. 5 sec. Now the set value is displayed and flashes. The set value can now be changed in steps of 1°C, using the ▲ and ▼ buttons. By pressing the “SET” button again, the set point is saved.

The status of the cooler (compressor on or off) is indicated from the small LED in the display (between the second and third digit of the display).

5. Technical data cooling unit

	Titan 250	Titan 500	Titan 1500	Titan 2000	Titan 150
Power (compressor)	1/8 PS	¼ PS	½ PS	1 PS	
Power uptake(watts)	100 watts	190 watts	375 watts	550 watts	150 watts
Cooling power(watts)	190 watts	395 watts	790 watts	1650 watts	200 watts
For aquaria up to (Δ T =10°C) (ΔT = 5°C)	150 l 300 l	250 l 500 l	700 l 1500 l	1500 l 2500 l	100 l 250 l
Recommended water flow in litres/h	200 – 1500	500 – 2000	800 – 2500	2000 – 4000.	200-1500
Weight	12 kg	14,5 kg	16,6 kg	31,5 kg	13,7 kg
Cooling gas	R 134 a				
Dimensions	14,9" x 13.8" x 12.6" (Lx W x H)	15.4" x 13.8" x 15.4" (L x W x H)	15.7"x19,7"x 17,3" (L x W x H)	13,8"x11,8" x13,8" (L x W x H)	
Heat exchanger	Titanium				
Temperature controller	digital, accuracy 0,1°C Set point adjustment in 1 °C steps				

6. Maintenance

The cooler has the same requirements with respect to maintenance like conventional cooling units (refrigerators etc.). Maintenance and/or repairs should be done exclusively either by a service engineer or by the manufacturer: Clean the air-cooled condenser regularly.

We recommend to flush the heat exchanger thoroughly once a year to remove any muddy parts.

7. Warranty

This product is warranted for 24 months after date of purchase on all material and production defects by **AQUA MEDIC**.

This warranty will not apply to units that were improperly installed, misapplied or modified by non-authorized institutions.

AQUA MEDIC is not liable for any consequential damages caused by the use of the product.

Warranty only by proof of purchase with the original invoice.

- Technical changes reserved -

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