

SERVICE NOTE

CS-3/CS4: Error "Bad cooling"

Cooling system

Cooling system of the CS-3/CS4 consists from the water reservoir with pump, plastic tubes and electronic circuits for monitoring of the furnace temperature and flow of cooling water. Message error "BAD COOLING" can occur for several reasons, so it is good to start with next steps:

- Check if the pump of the water circuit works correctly - unplug the cable which goes out of the water reservoir, connect a standard power cord and plug it directly to the wall socket.
- Make sure that water tubing from reservoir to pick-up unit is not over-bended or squeezed.
- Make sure that the position of the tubes is correct. A tube marked "OUT" must be connected to an inlet marked "IN" and vice versa. Water tubes marked by red/blue marks must be connected to inlet with the same color (see Figure 1).

If these easy steps still not help, please follow next instructions.



Figure 1: Left: Water reservoir; Right: Pick-up unit

Water pump

Sometimes there is problem with the little impeller inside the pump. You can hear some noise, so you can expect that pump is working, but the impeller is not rotating. To check it follow next steps:

- Switch the MFK1 OFF and unplug power cable of the pump to avoid risk of electric shock. It is cable which goes from the water reservoir to the CS4 unit.
- Open the water reservoir by loosening the top cap. Pull out the water pump from the reservoir and remove the plastic tube connected to the pump.
- Turn the water inlet 90 degrees to the right and then remove it, as it is shown in Fig 2. Then pull out the impeller.
- Check if the impeller has any broken part. If yes, you can easily fix the broken plastic part of impeller with glue. If necessary, please contact Agico for a spare impeller.

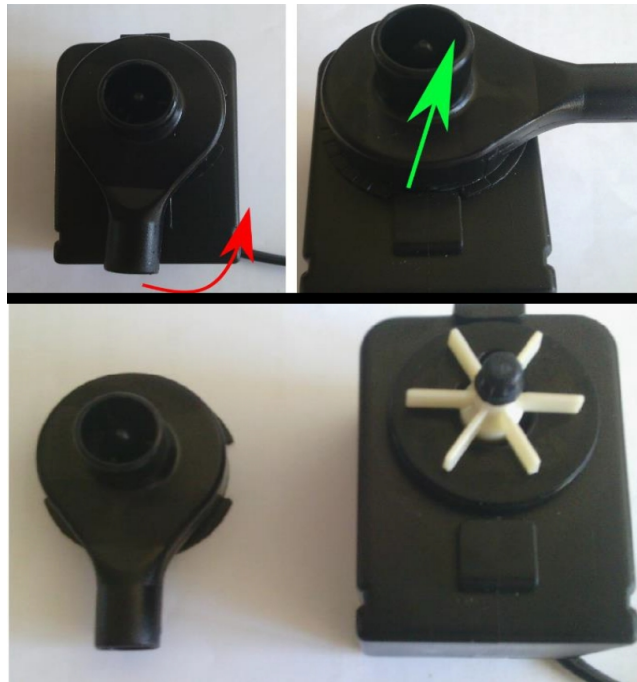


Figure 2: Water pump

Water flow

To check proper flow of the cooling water follow next steps:

- Switch the MFK1 OFF. Then Use a clothes peg to press the water tube denoted "OUT" on the Pick-up unit, as it is shown in Figure 3.
- Put the calibrated water reservoir (measuring cylinder) with volume at least 2 liters near to the pick-up unit.
- Open water circle by pulling the tube from inlet marked "IN" on pick-up unit and put this tube into the measuring cylinder. Don't forget to protect the measuring coil in the pick-unit against out-flowing water.
- Connect the cord of the pump into the wall plug. Then remove the clothes peg and let the cooling system working for a one minute.
- Then press the tube marked "OUT" again and measure the volume of the outflowing water. In normal conditions, the water flow should be 0.8-1 liter per one minute.
- Weaker flow of the water can be caused by broken flowmeter. In this case follow next step or contact Agico for further analysis.



Figure 3: Measurement of water flow

Flow meter

Sometimes there can be problem with blocked flow meter in Pick-up unit. Blocked impeller inside the flow meter can slow down the water. To check it please follow these steps:

- Switch the MFK1 OFF and Prepare some bigger cup with approximate volume 0.5 liter.
- Remove water tube from the furnace marked by red arrow in Figure 4. In the case there is no mark on your furnace, remove the middle tube from tree tubes connected to the furnace and use the cup for outflowing water.
- Then remove the water tube from inlet denoted "WATER OUT" on the left side of the Pick-up unit. Put the cup under the outlet "WATER OUT" and wait until all water is flowed out.
- Try to clean the tube disconnected from the furnace (Figure 4 left) with some pressured air. The easiest way is to blow into the tube with mouth few times. If you hear a whistling, it means that small impeller inside is rotating.



Figure 4: Left: Furnace; Right: Pick-up unit

- In the case that you are not able to blow throw the tube, the flow meter is permanently blocked or broken. In this case please contact Agico for further assistance.