**Replacing an Ametek Blower on Wet Dog Glass Equipment**

**Always be sure to wire the new blower the same way as the previous blower was wired.**

Ametek blowers have 4 wires that need to be connected. The wiring harness that connects directly to the blower body is color coded, with a black and white pair of wires on one side and a black and red pair of wires on the other. This will match the blower you are replacing, but what these wires connect to has changed over the years. **Always match how the wiring harness is connected to the previous blowers wiring. If wires are plugged in incorrectly the blower can be ruined. If you have any doubts about the wiring, contact Wet Dog Glass at 910-428-4111 or tech@wetdgoglass.com**

**Changing blower output settings in the Watlow temperature controller when switching to the new generation blower.**

In mid 2019 WDG switched to a slightly different model of blower.  It is the same size and uses the same mounting, but interprets speed signals from the Watlow controller differently. This new blower has a silicone coated control board, which makes it more resistant to humidity and water damage, the most common cause of blower issues we have seen.

When switching from the older model to the newer, follow the instructions below to adjust the Watlow output settings so your blower goes the correct speeds.  Without these changes the new blower may turn all the way off when going to low speed, and never go up to full speed when trying to gain temperature.

P/N: 116643-03  Used from 2000-mid 2019.  Signal was ~1.6-4.6 VDC.  Turn POT screw 10 turns full CCW (Counter Clockwise

P/N: 117991-01  Used after mid 2019. Silicone coated board.  Signal is ~2.0-6.75 VDC. Turn POT screw 10 full turns CCW

The POT screw is a small screw located inside a hole in the case of the blower, usually covered by a silver sticker. It is usually a white plastic screw in a blue background. If this is not turned the blower will be significantly slower than it should be, and may not come on.

**With newer Watlow controllers (mid 2018) the setup menu is password protected.  To enter the password:**

Hold reset/infinity and the green advance key together for 10 seconds until you see FCty on the bottom.

If there is a password you will see ULoc on top.  If there is not a password you will see CUSt or something else. If there is no password, press the reset key until the normal temperature screen appears and skip to “Access the setup menu”

Press the green button twice until you see PASS on bottom and a number on top.

Use the arrows to change this number to 156.

Press the reset key 2-3 times until you are back at the normal temp screen.  That password will stay active until you go back and change it from 156, or toggle power to the controller.

**To access the setup menu:**

Hold up and down arrow together for 10 seconds.  First the screen will change  to oPEr, keep holding until you see SEt.  If it doesn't change to SEt, release and try again, or you may need to enter the password if you hadn’t already.

Use the arrows to cycle through menus on the top screen until you see otPt.

Press the green advance key.

Use arrows to select 1 on the top screen.

Press the green advance key.

You should see voLt : o.ty

Press the green advance key.

You should see hEAt : Fn.

If you don't see these give WDG a call as you may have a system set up differently.

Press the green advance key until you see S.Lo on the bottom and a number on top.  This is the low speed of the blower.

Use the arrows to set the number to 2.0

Press the green advance key.

You should now see S.hi with a number above it.  Use the arrows to change this number to 6.75.

Press the Reset/Infinity key 3-4 times until you are back to your normal temperature screen.

**To check the blower speed, change to control mode to manual so the blower speed can be set directly.**

Press the green button until you see CM.1 on the bottom and Auto on top. Use the arrows to change from Auto to MAN. Press the reset/infinity key to return to the normal temp screen where the set point will now be a percentage.

 If you do not see CM.1 after pressing the green advance key, you will instead see Auto on the bottom of the screen and a percentage on top. Use the arrows to change from Auto to MAN. Press the reset/infitity key to return to the normal temp screen where the set point will now be a percentage.

Every blower is a little different and these values will need adjusted in some cases.  When the output is at 0% (Or the setpoint is more than 100 degrees below the current temp) the blower should be just barely on.  If it is too slow, it may turn off entirely, make a revving sound, or not satisfy the air switch.  If these happen, go back to the S.Lo setting, and increase the value by .1 -.2 at a time, checking the blower between changes.

When the output is at 100%   (Or the setpoint is more than 100 degrees above the current temp) the blower should be very loud.  To make sure it is at a good value, lower the percentage by 10% and listen for a change in the blower.  If you don't hear anything, lower it another 10%.  If you have to drop below 80% to hear the blower slow down, a lower value is needed.  Return to the S.hi setting and decrease the value by .1-.2, checking the speed as described above in between changes.

Conversely, if the S.hi number it to low, the blower may not being going to full speed. If it sounds slower than your previous blower, or takes longer to gain temperature, increase the S.hi number by .1 to .2 at t time, checking the speed inbetween to listen for a change.

Repeat the process to return from MAN control to Auto.

If you have questions during this process, give us a call.

910-428-4111 ext 1

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