Climacell flush with Vinegar- how to guide using BTU XT panel plus water testing recommendations.

1) Turn "off" refrigeration switch
2) Turn climacell switch "on" to manual, in humidity control switch screen please set RH control for climacell to manual, for multiple pump on the climacell please switch hum1 and hum2 to "man on" and RH control to manual in RH control screen
3) Set timed mode to green in clock screen for am/pm
4) Set high and low deviation to 24 – 25 so system stays on
5) In VFD fan speed screen please set timed mode speed to 10-20%- we want to recirculate and slowly push air thru the cell for good water distribution, **if water distributes evenly thru the media low air flow is not required** (then set climacell switch to "manual", fan to "off", switch other devices to off on the switchboard at control panel), **downstream of the media needs to feel wet to touch to assure full saturation level**
6) Please set intake doors open/close switch to "off" – intake door to be closed
7) Drain off water bypass line (installed opposite end from the pump) – a lot of dirt clogs this line
8) Drain off tank and refill with fresh water
9) Add white vinegar at required rate (5oz per lineal foot of the tank, not more) and run system for 6 hours, for more info please refer to Kuul Media Maintenance Section 2017 document (found in www.sweetpotatoventilation.com website in customer support section)
10) Pull red button out to start system
11) Allow media to saturate for at least 15 minutes to determine saturation level/wetness
12) Brush away (use soft brush) scale buildup from the face of the climacell if present (crust on media edges- face of the media), crust creates air flow restriction and allows easier mineral buildup on media edges and inside media, brushing should take place at the end of the 6 hour cleaning run when residue has soften from the application
13) Recommendation – PH level test will help determine your water quality, PH level 6.5-7.5 is neutral/ideal- good, if PH level is above 8-8.5, descaling will be needed (water PH should be lowered if possible thru a use of approved chemicals), sample tester shown- see next page

Note: for PH and TDS test please use water glass/plastic cup and fill it up directly from the water supply, run water for a minute first. Please see "Control Maintenance manual Guide" from KUUL for a complete information and maintenance procedures as well as in depth explanation of climacell/humidicell concept/operation/design. The test will give you a general idea of your water quality. **Any water contains salts to some degree – even good quality water.**

Note: We do not use water makeup/drain off system since we generally have sufficient evaporation rate that creates makeup water supply but in high contamination cases it can be introduced(additional water usage to be expected and maybe more costly in long run than the media). Good practice is to drain tanks and flush bottom of tank from mineral build up if visibly present to minimize its recirculation, each site will have individual time increments based on water usage and its quality but pattern of buildup can be observed and note thru storage season

14) Recommended TDS meter – total dissolved solids in ppm, level of 50-150 is very good, 150-250 is good, 250-300 fair, 300-500 poor – generally >150 can build up a residue in the media/tank, recommended TDS tester from Amazon below (for high pressure systems TDS <50 is required)

15) If this procedure was never done and scale buildup is rather significant or visible it is recommended to do the above two times, always using fresh batch of water for each application

16) Excess iron content customers – low ph water can corode metal parts but not media