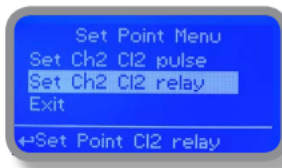


## Setpoints For EMEC Edge 200

- ✓ Setpoints will be different for every body of water. \*It takes time to get setpoints correct
- ✓ Setpoints can be found in the main menu list after password is entered.
- ✓ Setpoints can vary and need to be changed based on season, probe lifespan, chemical readings.



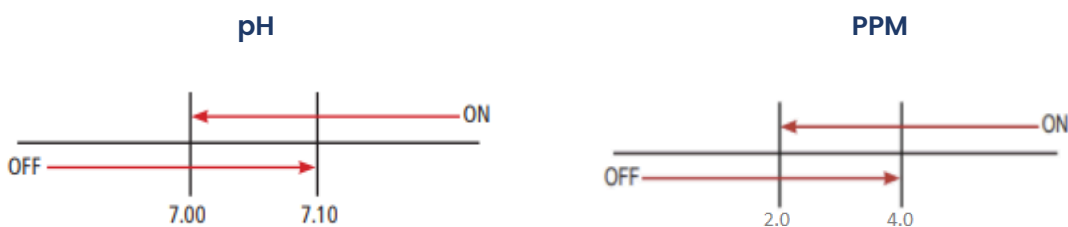
2 different Setpoint options:

**Pulse-** To be used with a **pulse** pump (we rarely see this used)

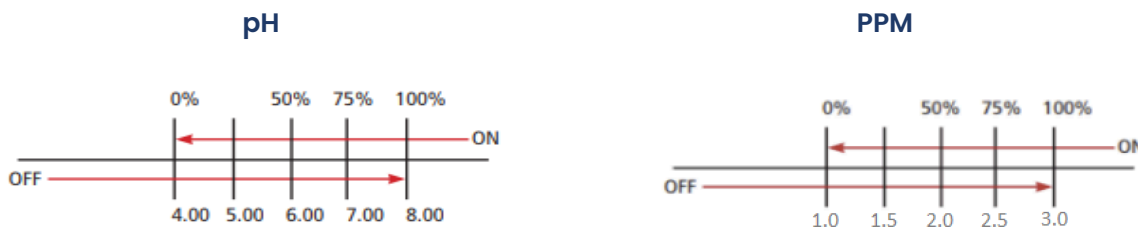
**Relay-** To be used with all other pumps- Stenners, pulsar, Peristaltic, LMI, etc.. Any pumps that need to turn on at a set point and send constant voltage to turn on power to the chemical pump.

### PPM (Chlorine) & pH Setpoint Options:

- 1) **On/off Mode-** turns on at setpoint number- turns off at setpoint number.



- 2) **Proportional PWM Mode-** Controls how long the chemical pump is on proportional to the distance between 0% setpoint and the higher percentage setpoint. Turns on and off based on correlating percentage and distance between On and Off Points. \*It is very normal for the chemical pump to not pump while in proportional setting. It will run for a length of time and stop for a length of time (the %). Example pH- On setpoint 7.5 Off Setpoint 7.4 Proportional 60%. Chemical pump will start to taper down 60% to 0% the closer pH get to 7.4



- 3) **Fixed PWM Mode-** controls how much the chemical pumps to get to the setpoint and how fast it is pumped into the pool. This mode lets you tell the controller how long to pump chemicals into the pool and how long to stop pumping chemicals into the pool before it starts pumping again. \*It is very normal for the chemical pump to stop pumping while in fixed setting. It will run for a length of time and stop for a length of time you set.





## How to find your Setpoint?!

Every body of water is going to have different set points. We have no magic number to set your body of water to.

### Here are a few tips and Tricks:

- The bottom number is the number you want the chemical pump to turn on and the top number is the number you want the chemical pump to turn off.
  - For Chlorine (ppm) the bottom number is going to be lower than the top number. \*Sanitizer brings chlorine up.
  - For pH the bottom number is going to be higher than the top number. \*acid brings pH down.
- Use ON/OFF for bigger bodies of water. If used for smaller bodies of water, they are more likely to overfeed.
- Use Proportional/Fixed for smaller bodies of water. Normally we use Proportional more than Fixed.
- Proportional mode percentage is the percentage you want the chemical pump to run as it gets closer to setpoint. Example 60%- the chemical pump will start to taper off pumping chemicals run 60% of the time and off for 40% of the time and decrease until setpoint is reached.
- Fixed mode you tell the controller how long to run in seconds (Ton) and how long to stop in seconds (Toff) until setpoint is reached. Example 80 (Ton) 40 (Toff) chemical pump will run for 80 seconds and off for 40 seconds until setpoint is reached.

### Helpful for Chlorine (ppm) Set Point- Every pool is Different

- Using Proportional the pool is less likely to overshoot, however might not keep up with demand on bigger bodies of water.
- When using proportional your feeder will cycle pumping chemicals and pausing and pumping chemicals. This might not be the best choice for Cal-hypo.
- Do not mix up the percentages ensure that the 0% is where you want it to shut off and the larger percentage (1 - 100% depending on setup) is set to something lower than the shut off point.
- Suggestion- keep your set points 0.5 - 2.0 point difference. If points are too far apart the feed will behave sluggishly and cause low chlorine issues. If too close, special feed modes such as Proportional feed will not have time to work correctly.

### Helpful for pH Set Point- Every pool is Different

- Using Proportional the pool is less likely to overshoot, however might not keep up with demand on bigger bodies of water.
- When using proportional your Stenner will cycle pumping chemicals and pausing and pumping chemicals.
- Do not mix up the percentages ensure that the 0% is where you want it to shut off and the larger percentage (1 - 100% depending on setup) is set to something higher than the shut off point for acid pumps.
- Suggestion- keep your set points .1-.25 point difference when using proportional feed modes. Do not exceed 0.25 in difference unless otherwise directed.
- Unlike chlorine, you should rarely have to adjust your set points once set.

## Setpoint Recommendations & Troubleshooting

Problem	Setpoint Recommendation	Troubleshooting
Low Chlorine	Not to exceed 6.0ppm Use on/off mode Raise % if using Proportional mode Adjust time if using Fixed mode	Raise Cl setpoint Bring pH to setpoint Clear alarms Bring pH setpoint number further apart
High Chlorine (Overshooting Chlorine)	Not less than 1.0ppm Use Proportional mode Use Fixed mode Lower % if using Proportional mode Adjust time if using Fixed mode	Low Cl Setpoint Bring pH to setpoint Bring Cl setpoint closer together
Low pH (Overshooting pH)	Not to exceed 7.8ppm Use Proportional mode Use Fixed mode Lower % if using Proportional mode Adjust time if using Fixed mode	Raise pH setpoint Bring pH setpoint numbers closer together
Hi pH	Not Less than 7.2ppm Use on/off mode Raise % if using Proportional mode Adjust time if using Fixed mode	Lower pH setpoint Bring pH setpoint numbers further apart

VivoAquatics Support: 1-888-702-8486