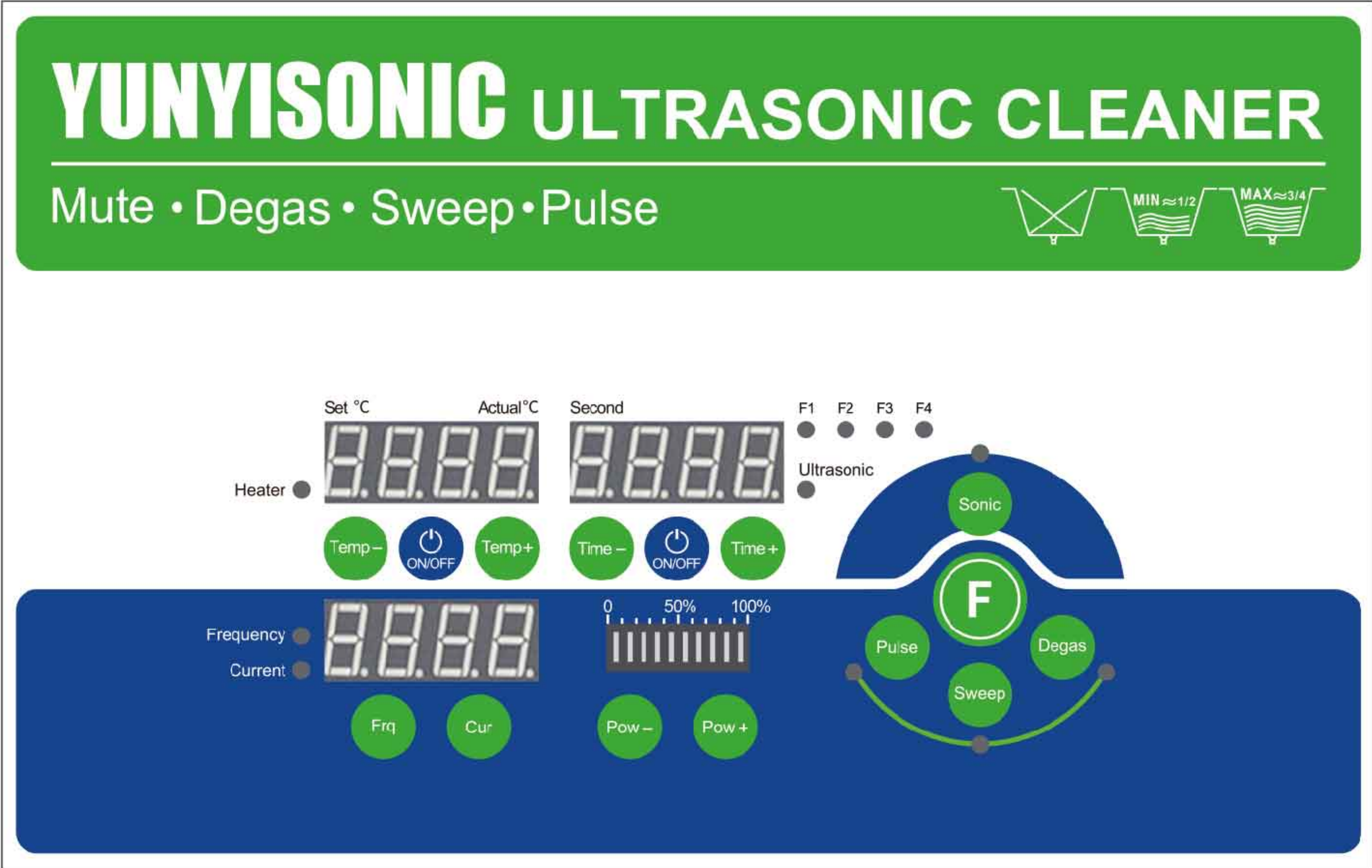


# YL Series Explanation of Controls(1)

## Controller Display Diagram

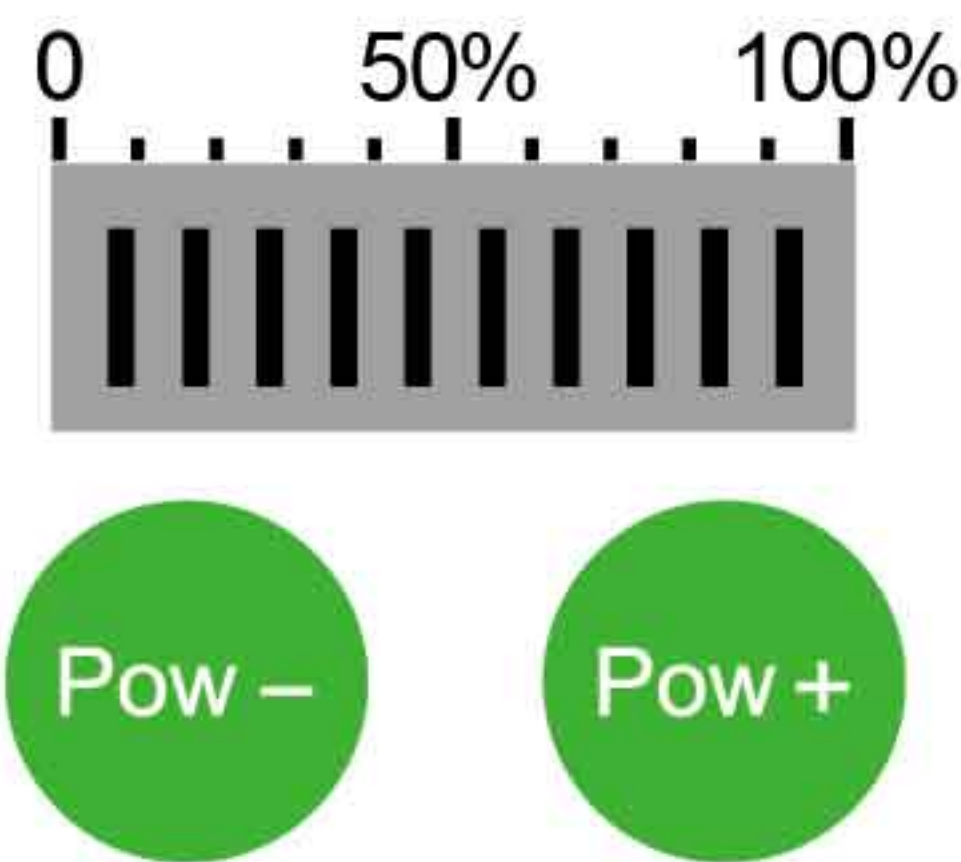
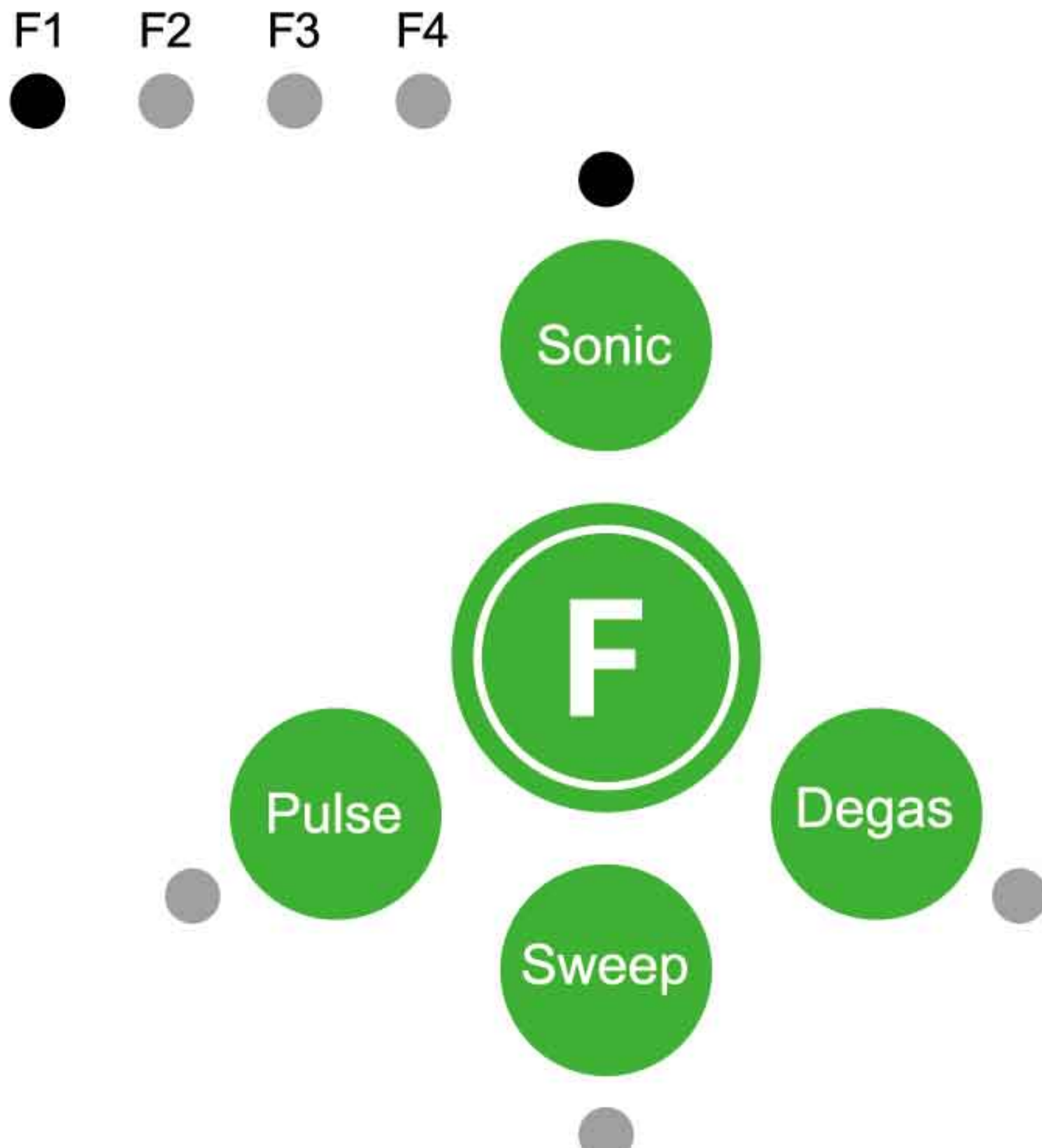


Controller Function Table


Control	Function
<div> <div> <div>Set °C</div> <div>Actual °C</div> <div> <div>Heater</div> <div> <div>Temp -</div> <div>ON/OFF</div> <div>Temp +</div> </div> </div> </div> </div>	<div> <div>Temperature Setting</div> <p>The temperature display shows "45" and the actual temperature. Press the "Temperature+" button once to increase the set temperature by 1°C, and press the "Temperature-" button once to decrease the set temperature by 1°C. Press the "Temperature+" button once to increase the set temperature by 1°C, and press the "Temperature-" button once to decrease the set temperature by 1°C. Press the "Power" button once to activate the heating function. The heating indicator light turns on, and the actual temperature flashes at a frequency of 1Hz. When the temperature reaches the set value, the display stops flashing. The temperature display shows both the set and the actual temperature. In heating mode, the heating indicator light stays on.</p> </div>
<div> <div> <div>Second</div> <div> <div>Ultrasonic</div> <div> <div>Time -</div> <div>ON/OFF</div> <div>Time +</div> </div> </div> </div> </div>	<div> <div>Time Setting (accurate to seconds, maximum time 9999 seconds):</div> <p>When ultrasonic is off, each press of the "Time+" button increases the time display by 1 second, and each press of the "Time-" button decreases the time by 1 second. (Press and hold for quick adjustment.) Display "0000" for continuous mode. After setting the working time, press the "Power" button once to start the ultrasonic function. The ultrasonic indicator light turns on, and the machine works according to the specified parameters. The countdown starts, and when the set time is reached, the machine automatically stops, and the work indicator light turns off. Note: The digital series has a parameter memory function. Parameters set before the function is turned on are saved even after power loss.</p> </div>
<div> <div> <div>Frequency</div> <div>Current</div> <div> <div>Frq</div> <div>Cur</div> </div> </div> </div>	<div> <div>Frequency/Current Display Window:</div> <p>The default display alternates between the current working frequency and current every 5 seconds. When the frequency or current button is pressed, the display shows the corresponding frequency or current, and stops alternating. When the frequency light is on and shows "F80", it indicates that the current frequency is 80 kHz.</p> </div>




YL Series Controller Function Introduction(2)

Control	Function
	<p><b>Power Adjustment</b></p> <p>Power Adjustment: After turning on the ultrasonic function, press the "Power+" button to increase the power, and press the "Power-" button to decrease the power. Press and hold the button to continuously adjust the power. The adjustment range is from 10% to 100%.</p>
	<p><b>Working Modes (Ultrasonic/Pulse/Degas)Switching</b></p> <p>Before starting the ultrasonic, press the Ultrasonic, Pulse, or Degas button to enter the corresponding cleaning mode. If you want to switch to another cleaning mode during operation, first turn off the ultrasonic, then select the desired mode and turn on the ultrasonic again.</p> <p><b>Sonic:</b>Normal cleaning, the cleaner operates at optimal settings.</p> <p><b>Pulse:</b>Power cycles between 1% and 100%, resulting in stronger cleaning impact.</p> <p><b>Degas:</b>Works for 6 seconds and stops for 3 seconds, quickly removing air from the liquid, improving cleaning efficiency.</p> <p><b>Sweep:</b>After turning on the ultrasonic, press "Sweep" to activate the sweep function. This function works with other modes, and when activated, the ultrasonic frequency cycles within <math>\pm 1</math> kHz to match the optimal working state of each transducer, resulting in better cleaning performance.</p>
	<p><b>Frequency Switching for Two / Three / Four Frequency Ultrasonic Cleaners:</b></p> <p>After turning on the ultrasonic, press "Sweep" to activate the sweep function. This function works with other modes, and when activated, the ultrasonic frequency cycles within <math>\pm 1</math> kHz to match the optimal working state of each transducer, resulting in better cleaning performance.</p>

1)Cleaning Items (Treating Samples) in Timed Sonics Mode

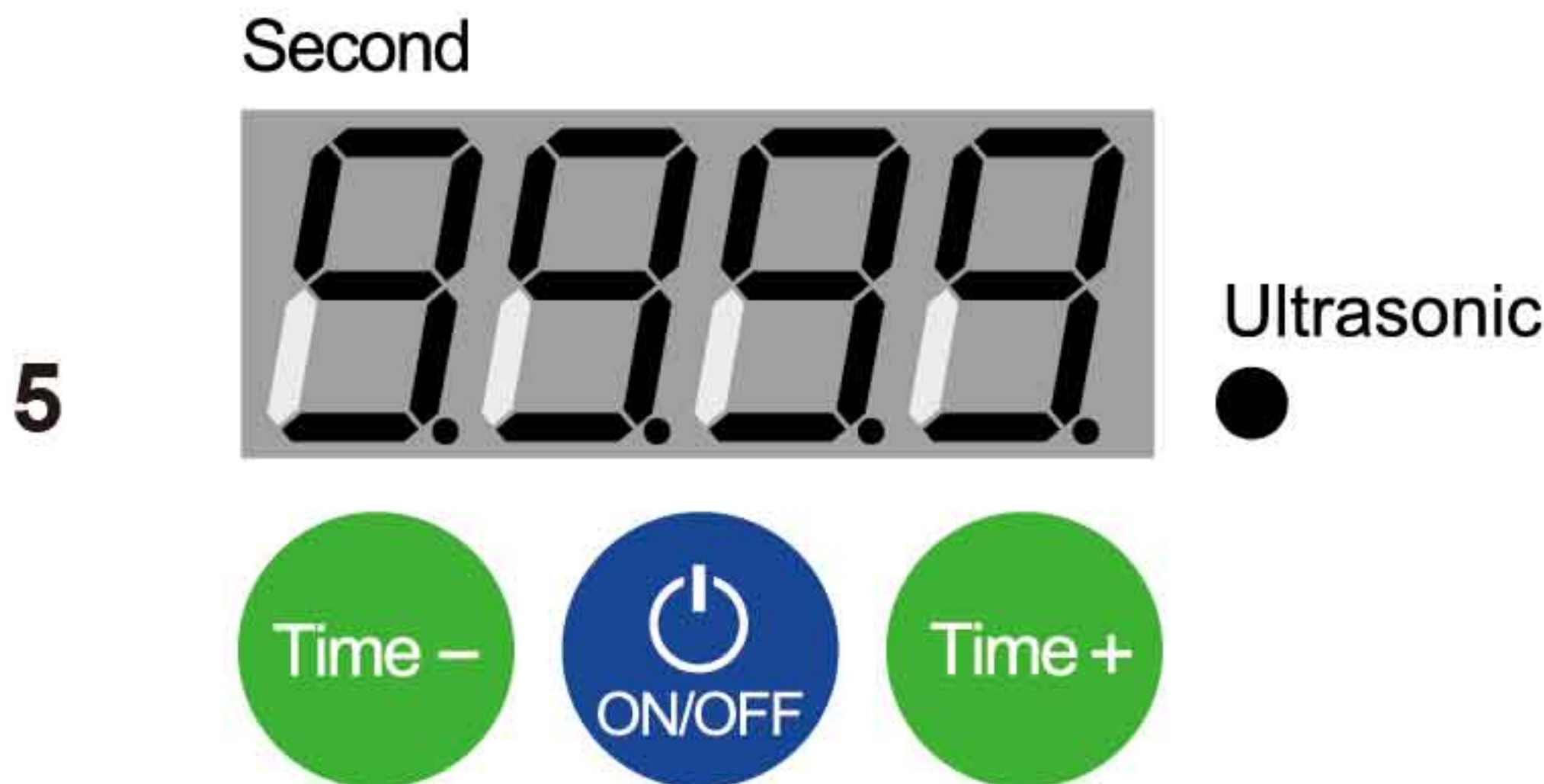

Note	To stop ultrasonics at any time, press the Time key
	<ul style="list-style-type: none"><li>• Don't turn-on without the liquid</li><li>• To stop ultrasonics at any time, press the Time key</li></ul>

2)Draining Your Unit

Warning	General warning
	<ul style="list-style-type: none"><li>• Pls turn off stop heater &amp; wait for 10mins, before drain the liquid</li><li>• Do not immerse the cleaner in water. Unplug the unit from the power source</li></ul>



Setting operating parameters

Step	Action
1	<b>Add Cleaning Solution:</b> Based on the manufacturer’s recommendation, add the correct diluted cleaning solution to the tank until it reaches the operational liquid level.
2	Consider the volume of the items to be cleaned and leave some space for the cleaning solution. Add solution until it is above half of the tank’s liquid level.
3	<b>Power Connection:</b> Plug the cleaning machine into a grounded outlet with a grounding terminal.
4	<b>Turn On Main Power Switch:</b> The switch is located at the back of the desktop cleaning machine, near the power cord socket.
5 	<b>Note: When “0000” is displayed, it indicates the always-on mode</b> <b>Set Cleaning Time:</b> Use the “Time +” button to increase the cleaning duration or the “Time -” button to decrease it. (Press and hold these buttons for rapid adjustments.)  <b>Start Ultrasonic Cleaning:</b> Gently press the “ON/OFF” button once. The ultrasonic operation indicator light will turn on, and the machine will operate according to the set parameters.
6 	<b>Note: Pressing the heating “Switch” button at any time will stop the heating function</b> <b>Note: The heating function can be enabled before or during ultrasonic operation</b>  <b>Set Heating Temperature:</b> Press the “Temp +” button once to increase the set temperature by 1°C or the “Temp -” button to decrease it by 1°C. Press the “ON/OFF” button once to enable the heating function. The heating indicator light will turn on, and the machine will start heating.
7	<b>Prepare Items for Cleaning:</b> Place the items to be cleaned in a mesh basket, beaker, or solid tray. Ensure the cleaning solution covers the items.
8	<b>Insert Basket or Beaker Slowly:</b> Slowly lower the basket or tray or beakers into the tank. Do not stir. Do not allow the items being cleaned to touch the tank bottom.
9	<b>Remove Items After Cleaning:</b> When the items are clean, then slowly remove the items from the cleaner.
10	<b>Post-Cleaning:</b> Rinse items with water, and dry with a non-abrasive cloth or allow them to air dry, if necessary.

Temperature

Item	Function
Heater	The heater may cause some discoloration of the tank wall. This is normal and will not affect the heating performance of the unit.
Solution	The fastest method to heat your ultrasonic bath is to fill with warm solution, use heat, ultrasonics (which also adds heat), and a cover.