# ETC Temperature Setting Manual

The electronic thermal chamber is designed to perform its optimum capacity for a 15°C differential temperature against the room temperature. For example, if the device installed room has 25°C temperature, designated output to perform is 15°C down from the existing environment temperature in the case of the ETC size is 40L and 10°C while the box of use is in the size of 100L. Minimum achievable temperature out from 1°C to -5°C set is down to -5°C, on contrary of 60°C when the machine is assigned to perform to its plus side from 40°C room temperature.

Mainly, the panel fixed on the side of the chamber has 3 advantageable ranges of temperature setting options:

1.  1°C to 40°C (Default Setting)
2.  -5 to 40°C
3.  -5°C to 60°C

The default temperature on the machine will be 1°C to 40°C.

**Temperature Setting Procedure:**
3 sets of temperature settings are scheduled in the system.

1) 1°C to 40°C set

> Temperature setting from the set of 1°C to 40°C which appears default, is simple and easy. Application of slight pressures on the "+" and "- "button for finding desirable setting degrees out from the panel given on the side of the box, executes.
> Ready-made Value that appears on the upper LED of the panel is chamber temperature. To set the desirable temperature, the values shall be input in the lower LED by placing the slight pressure on "+" or "- ", button to search the desirable temperature value from the set of 1°C to 40°C.  In case the setting is required to descend from, press the ("- ") or press ("+") for setting the plus temperature.

2) 1°C to -5°C set (F2)

> (a) Concurrent hold of the plus & minus ("+", "- ") button for about 10 seconds prompts the setting panel, with appearance of F3 on top LED and a numeric "1" on the lower side.

> (b) Upon appearance of the F3, press once the "+" button to navigate the selection from F3 to "F2" key to establish setting of temperature between -1°C to -5°C set. Note, while there is F2 key on top LED appears, the lower LED remains empty with full black screen.
> At this stage, press the ("+", "- ") button simultaneously to effect numeric "1" on the below LED, and in an appearance of numeric "1" with blinks, press "- "button to set one desired temperature from the set of "1°C to -5°C in descending order.

3) 40°C to 60°C set (F1)

> (a) Hold the plus & minus ("+" and "- ") button at same time for about 10 seconds to initiate setting panel, with appearance of F3 on its top LED area along with a
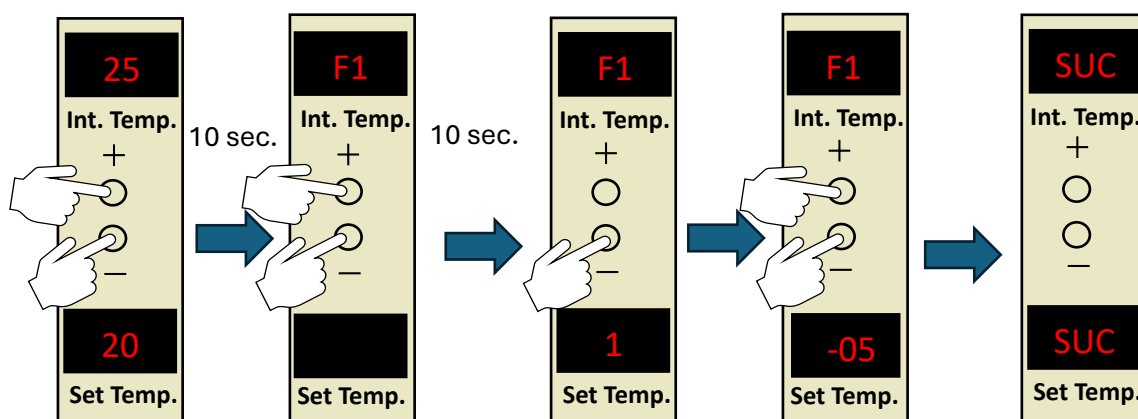
numeric "1" on the lower screen.

(b) Upon appearance of the F3, press twice the "+" button to shift the selection to "F1", and at this time the lower LED remains empty to abundant the selection of desired temperature-value from 40°C to 60°C.
As selection is managed to shift to "F1" on the top LED, now press the ("+" and "-") together for about 10 second to effect the numeric "40" on lower LED area, and upon generation of desired setting panel, press "+" button to select setting value from 40°C to 60°C. Once the temperature is set, in a while the "SUC" on the lower LED to hint successful setting, appears which will, in short while, disappears automatically making the shift of the panel to its original state.

4) "OFF" to revert by default into normal.

(a) . Upon appearance of "F3" key on top LED, and applying a press on minus ("-")button once or pressing "+" button thrice generates the screen with option of "OFF" to help revert back in initial state without making any changes, if in case the entry to the area is mistakenly made.
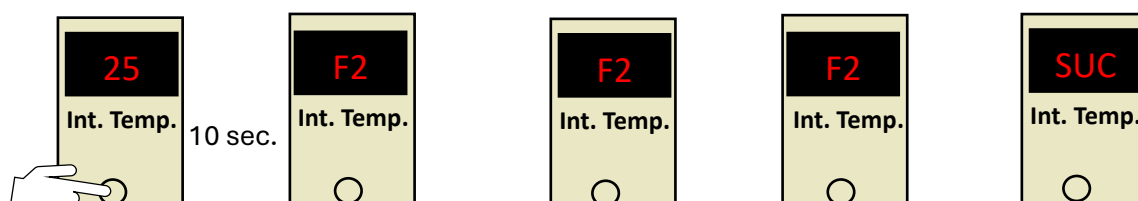
---

Appearance of F1 on the upper LED along with display of value "1" on the lower, means setting is ready to choose for any value between 18°C to -5°C, starting from displayed value "1" either to ascending order of 18°C, or to -5°C in descending order, as shown in the below image-1).
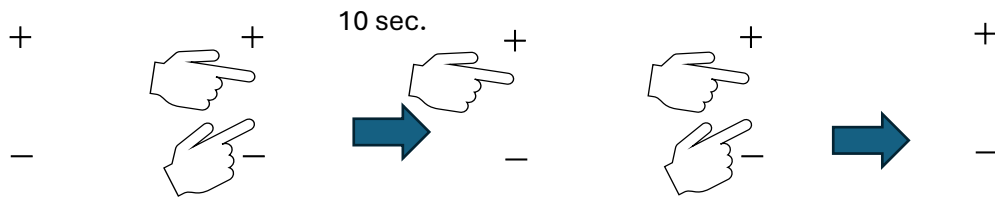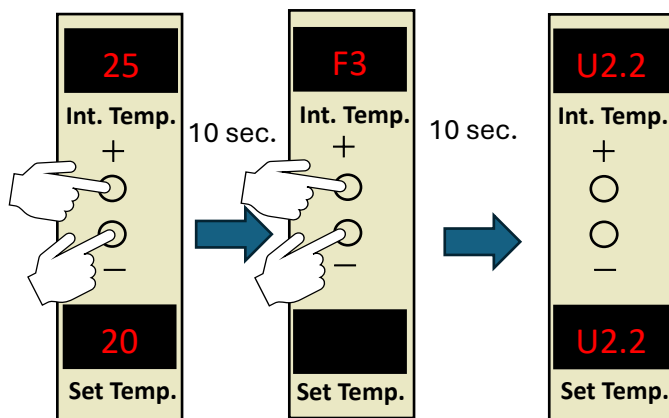


(Image-1)

F2:

The demonstration of F2 on the upper LED is now to work in the versa situation of F1, letting users here to set temperature to higher side alone. For example, if the room temperature is 25°C and setting is necessary to choose anyone value up from existing value (temperature), press plus sign and confirm the set value (between 26°C to 40°C on the lower LED as shown in image-2. However, on the plus side, the machine can perform the achievement to up to 60°C.
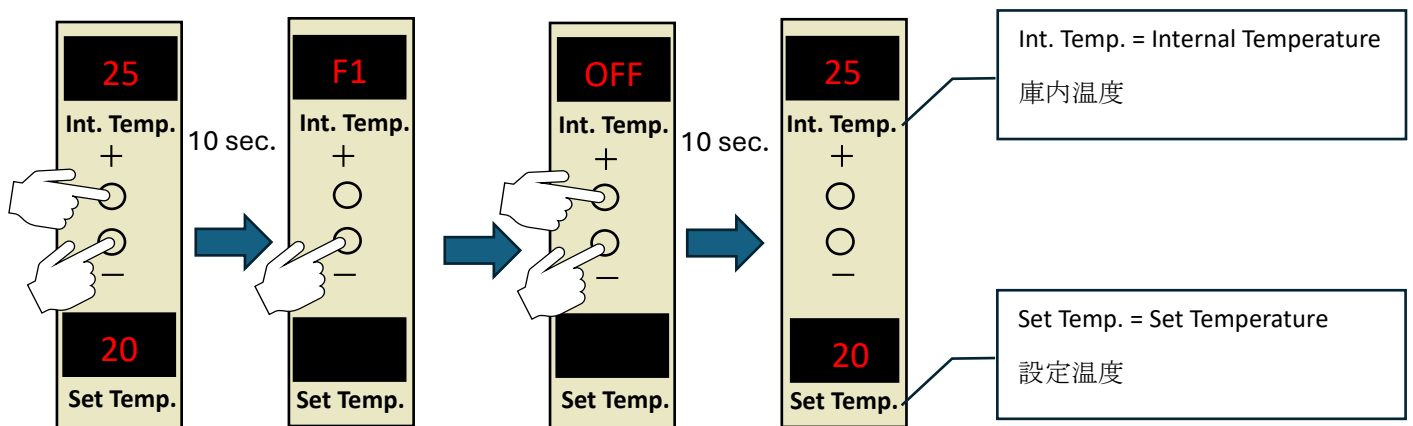
(Image-2)

F3: In F3 setting option, it displays CPU version of the Software in upper and lower LED (See Image-3)



(Image-3)

OFF: The "OFF" setting option allows users to return to normal mode from setting pad with safe setting of all newly values for execution as shown in image-4.



Int. Temp. = Internal Temperature
庫内温度

Set Temp. = Set Temperature
設定温度

(Image-4)

**The below should be in the record of the company is however to not to establish to the record of users.**

## Error Code Detail:

| Error No. | Error Name | Error Explanation |
|---|---|---|
| E1 | NTC2 overheat | Heartsink's overheating |
| E2 | NTC1 overcooling | Chamber's overcooling status |
| E6 | NTC1 INVALID | Connection failure or malfunction of NTC1 |
| E7 | NTC2 INVALID | Connection failure or malfunction of NTC2 |
| E9 | NTC1 overheating | Detection of overheating in the chamber |