

# *SenseLife*<sup>TM</sup> Tim8

Table multi-indoor air quality monitor

## user manual



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**SenseLife<sup>TM</sup>** Tim8

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Thank you for purchasing table monitor (Tim-08)  
Please read the user's manual before handling the product  
Please place the user's manual in safe place after reading for later use  
Please read safety precautions carefully before operating the product  
Warranty card is included in the user's manual.  
The contents and standard features in user's manual can be changed  
without notice due to upgraded specifications and functions.

# Safety precautions

**SenseLife<sup>TM</sup>** Tim8

*table multi-indoor air quality monitor*

- Top protect users safety and prevent any financial damage, please read carefully before using Tim-8. After reading, you are requested to put this manual on the noticeable place.

## **CAUTION..**

In case of using this device improperly, we remind you the possible danger and damage as below classification.



WARNING

This means that user could get into the risk of death or serious injury.



CAUTION

This means that there can be an injury or a financial.



NOTICE

This requires your attention.



PROHIBITED

This means that you have to shop it.



COMPULSORY

This means that you are forced to do it.



# Prohibited



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table multi-indoor air quality monitor

1. Do not place the monitor in the area where it contains too much rain, snow, seawater this monitor is not water-proof. It might be the reason for a short circuit.



3. Do not drop or give any shock on the product it may cause a defect due to strong shock on the internal electric circuit.



**Error**

2. Do not use in case of malfunction if there is any smoke or any indication on the display or blinking, stop using the product otherwise it may cause a fire.



4. Do not place too close to a fire or in the hot area. it may cause malfunction or a defect due to high temperature use it between  $-20^{\circ}\text{C}$  ~  $50^{\circ}\text{C}$

**Fire**



between  
 $-20^{\circ}\text{C}$  ~  $50^{\circ}\text{C}$

# Mandatory precautions in using the product



*SenseLife™ Tim8*  
table multi-indoor air quality monitor

1. Use the adaptor provided in the product  
it may cause a defect if using other adaptor.



3. Avoid placing any area there is direct  
sunlight or high temperature.



2. Place this monitor upwards. it might give wrong values  
or cause a defect if placed in face down or opposite.



4. This product has multifunction indicating the indoor air  
quality. It is also a convenient device because it indicates and  
warns CO2 concentration level to ventilate the indoor air.



# Safety precautions



**SenseLife<sup>TM</sup> Tim8**  
*table multi-indoor air quality monitor*

1. Do not repair or modify this product on your own if it is the cause to a defect or malfunction, you cannot get warranty service.



2. Do not use in wet hands or pull the cables with bare hands.



3. Do not allow moisture or wet the product.

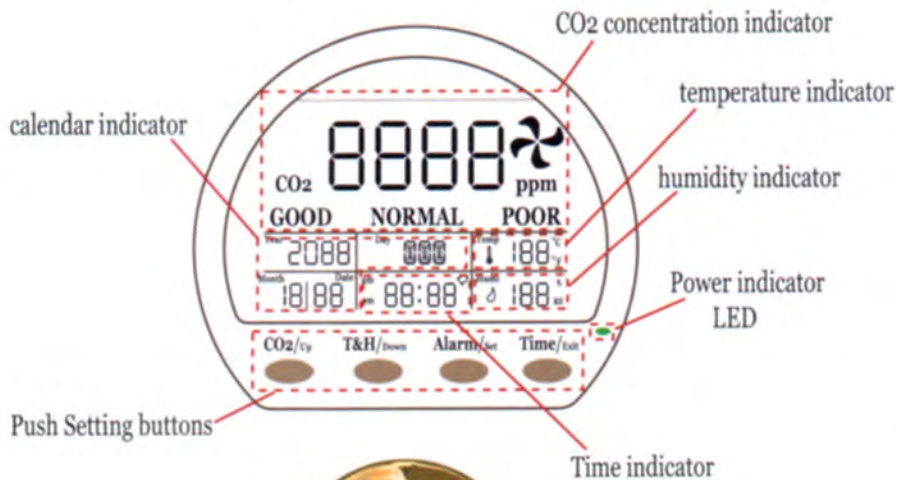


4. Do not use any chemicals or detergent.



# Name for each part

**SenseLife<sup>TM</sup> Tim8**  
table multi-indoor air quality monitor



(AC 220V / 110V, DC 5V 1A)



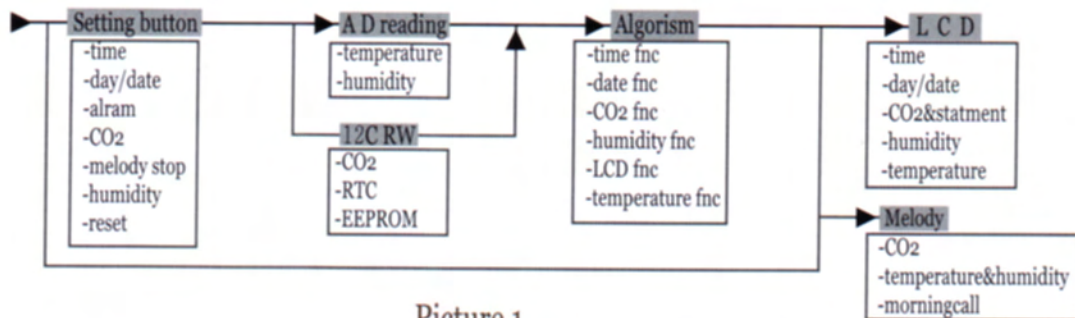
*User manual*

# Standard product features

**SenseLife™** Tim8

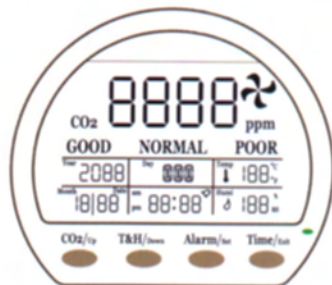
table multi-indoor air quality monitor

1. Picture 1 is to the product composition.



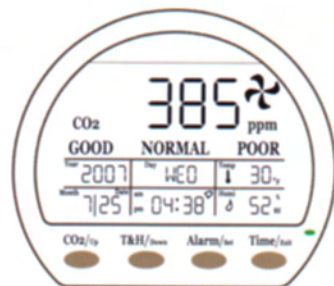
Picture 1

2. Picture 2 is when the product is powered in.



Picture 2

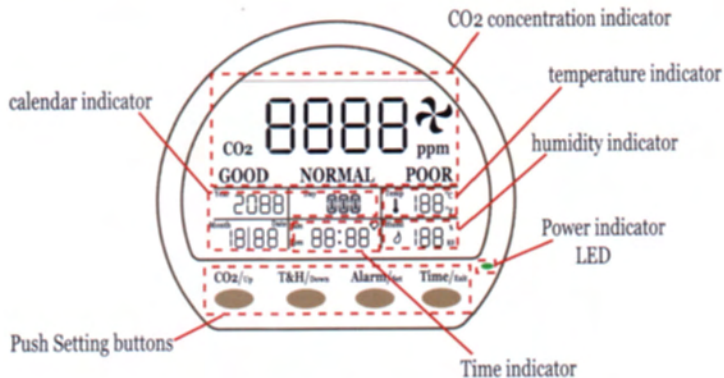
3. Picture 3 is with all the sensors give out the general values.



Picture 3

# Standard function in this product

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table multi-indoor air quality monitor



## [Features of display of this project]

### ● Names and functions for each indicator on the display

1. CO2 concentration indicator : it shows the concentration of CO2 (0~9999ppm)
2. Temperature indicator: it shows the room temperature (-40℃ ~ 50℃ ) it can be converted to ℃/°F .
3. Humidity indicator: it shows the humidity value ( 30%Rh~80%RH)
4. Calendar indicator : it shows year, month, day and dates.
5. Time indicator: it shows hour, am, pm. minute
6. Push setting button: user can push the button to set the each indicator
7. Power indicator: it shows the product is powered by LED.

### ● How to use setting button

**CO2/up** press the button for 3 seconds then it will go into the CO2 concentration mode. you can set your value.

**T&H/down** press the button for 3 seconds then it will go into the temp/humidity mode

**Alarm/set** press the button for 3 seconds then it will go into the morning call and also can set the dew point ,CO2 level and the time.

**Time/exit** press the button for 3 seconds and it will go into the date and time set mode.

# How to set the CO2 value

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table multi-indoor air quality monitor

● **This monitor will indicate good , normal, or poor according to the indoor CO2 concentration level.**

- 1-1) setting to [GOOD] mode: if you press CO2/UP button for 3 seconds, [GOOD] will be on the indicator, use the CO2/UP button and T&H/Down button to set the CO2 value. Then press Alarm /Set button to confirm the CO2[GOOD] value.

Note : remember only the value below the setting point can be in [GOOD] value

The setting point is 800ppm, therefore you can only set it under 800ppm.

- 1-2) then [ NORMAL ] will be on the indicator. Press the CO2/UP and T&H/Down button to set the CO2 value then press the Alarm/Set button to confirm.

Note : remember that only the value above [GOOD] and below the [NORMAL] setting value which is 1200 ppm.

- 1-3) then [POOR] will be on the indicator. You can press the CO2/UP and T&H/Down button to set the CO2 value the press the Alarm/Set button to confirm.

Note :[POOR] setting point is above 1200ppm. If the value goes up to the setting point , [POOR] sign will be on the indicator and it is the time for ventilation. You can set it up to 4990ppm.

- 1-4) then [CO2, ppm,POOR] will on the indicator. You can set the warning value for CO2 concentration level. Press CO2/UP and T&H/Down button to set the value and press Alarm/Set button to confirm.

- 1-5) then [CO2, ppm] will be on the indicator and also [C ON or C OFF] , too. c.on means CO2 warning alarm sound on C OFF means CO2 warning alarm sound off press CO2/UP for on T&H/Down for off then press Alarm/Set button to confirm.



button for discontinue setting

buttons for setting all the points

- 1) press it short, the value goes down by 10 ppm
- 2) press it long, the value goes down fast

- 1) press it long, it goes into the setting mode
- 2) then press it short, the value will go up by 10 ppm
- 3) press it long, the value will go up fast

● **Reminder) anytime you want to be out from setting mode, press Time/Exit button.**

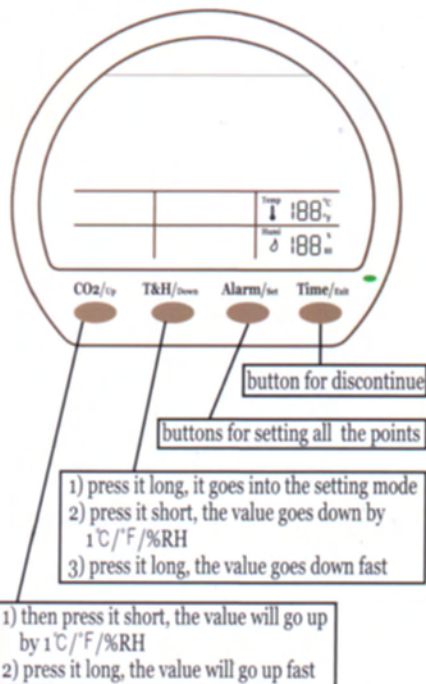
# Temperature/humidity/dew point alarm / low humidity/high humidity alarm setting

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table multi-indoor air quality monitor

- Set alarm for dew point: it is set to alarm at the room temperature below 12 °C ( 55 °F), above humidity 55 % RH. When the humidity is under 30 %, the low humidity warning alarm will be on. When the humidity is over 60 % RH, the high humidity warning alarm will be on (Δ).

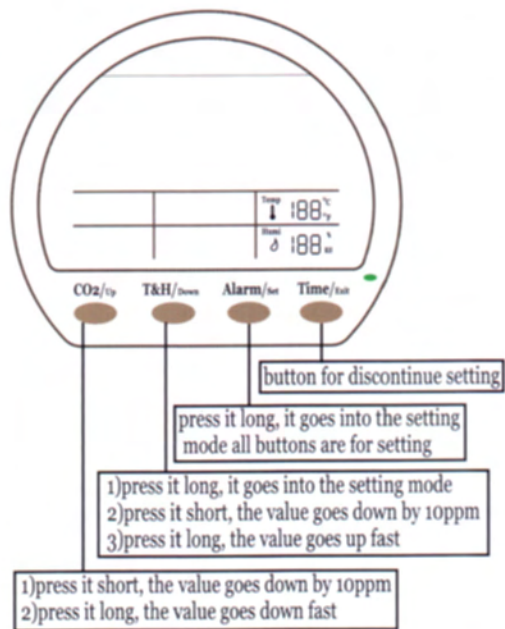
- 1) How to change the dew point : press T&H/Down button for 3 seconds, [ temp, temperature lamp, c, f,] will be on the indicator. Press CO2/UP and T&H/Down button to set the desirable value then press Alarm/Set button to confirm.
- 2) then [humi, humidity lam] will be on the indicator. Press CO2/UP and T&H/Down button to set the desirable value then press Alarm/Set button to confirm.
- 3) then [humi, humidity lamp, %RH] will be on the indicator. Press CO2/UP and T&H/Down button to set the high humidity warning value. Then press Alarm/Set button to confirm.
- 4) then [humidity lamp] will be on the indicator, press CO2/UP and T&H/Down button to set the desirable value. Then press Alarm/Set button to confirm.
- 5) then [H on] will be on the indicator, press CO2/UP and T&H/Down button to decide whether to have dew point alarm on or off. Then press Alarm/ button to confirm.

- **reminder: dew point alarm system is to warn the possible indoor air pollution due to dew points created on the walls where the indoor and outdoor temperature difference is high.**



# Morning call setting

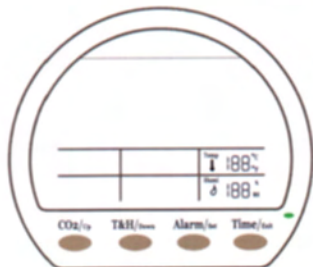
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table multi-indoor air quality monitor



## ● morning call or alarm can be set

- 1) Alarm set: Press Alarm/Set button for 3 seconds, time lamp will be on the indicator press CO2/UP for on then bell sign will be on the indicator. Press T&H/Down for off then the bell sign will be deleted. Press Alarm/Set button to confirm. (🔔)
- 2) then [am/pm] will be on the indicator. Press CO2/UP and T&H/Down button to set am for morning, pm for afternoon. Then press Alarm/Set button to confirm.
- 3) And then the indicator will show a bell sign then set the minute with CO2/UP, T&H/Down. Press Alarm/Set button to confirm. (🔔)

## ● how to convert Centigrade (°C) to Fahrenheit (°F)

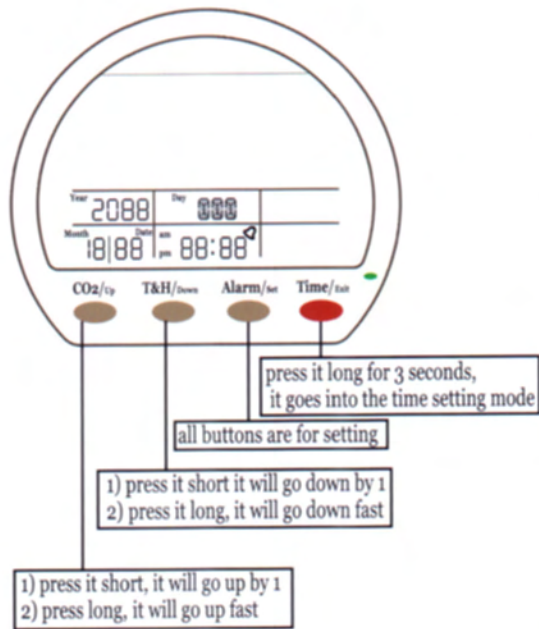


you can select the temperature measurement between Centigrade (°C) & Fahrenheit (°F)

- 1)press T&H/Down button short then it converts to Centigrade (°C)
- 2)press it again then it will be Fahrenheit (°F)

# How to set the date and time

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- 1) press Time/Exit button for 3 seconds, then Year20 will be on the indicator. Then use CO2/UP and T&H/Down button to set the year. Press Alarm/Set button to confirm.
- 2) then [Month] will be on the indicator. Use CO2/UP, T&H/Down button to set the value then press Alarm/Set button to confirm.
- 3) then [Date] will be on the indicator Use CO2/UP, T&H/Down button to set the value then press Alarm/Set button to confirm.
- 4) then [Day] will be on the indicator Use CO2/UP, T&H/Down button to set the value then press Alarm/Set button to confirm.
- 5) then [am/pm] will be on the indicator Use CO2/UP, T&H/Down button to set the value then press Alarm/Set button to confirm.
- 6) then [alarm bell sign] will be on the indicator Use CO2/UP, T&H/Down button to set the value then press Alarm/Set button to confirm. (🔔)

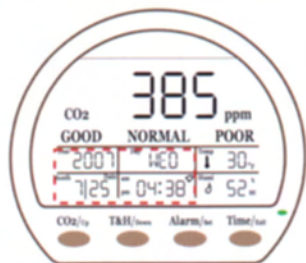
**Note:** anytime you want to be out from setting mode, press Time/Exit button.

# How to reset or initialize

**SenseLife™** Tim8  
table multi-indoor air quality monitor



Picture 1  
reset button and the display



Picture 2  
after reset and changed display

- **If you want to reset, all the set points including CO2 level, date and time, morning call will go back to as it was manufactured.**

- 1) press CO2/UP and Time/Exit button at the same time for 3 seconds. The display will be as picture1, after 2 seconds later, the display will be changed as picture 2
- 2) The date and time inside the red line as in picture2 will be different with the present time. Set the date and time as the present date and time by following setting procedure.

- **Initial setting values are noted at the bottom**

- 1) CO2 setting point and the range  
CO2 good: below 800ppm, [GOOD] will be on the indicator.  
CO2 normal: 801-1200ppm, [NORMAL] will be on the indicator  
CO2 poor: over 1201ppm, [POOR] will be on the indicator(☹)  
CO2 pre-warning: alarm will be on at 1500ppm, if this set value is changed by user, the alarm will be on at the changed value  
CO2 main-alarm: alarm will be on above 5000ppm,
- 2) how to set temperature and humidity  
temperature/humidity: room temperature and humidity will be on the indicator (there's no set temperature and humidity values from manufacturer)  
alarm for temperature/humidity, dew point: alarm will be on below 12°C (55°F), above 65%RH  
warning high humidity : alarm will be on above 60%RH(☹)  
warning low humidity : alarm will be on below 30%RH(☹)
- 3) initial set date and time  
initially it is set as 12:00 AM Sunday Jan. 1, 2007  
morning call set : 7:00 AM

# General characteristics of CO<sub>2</sub> ( carbon dioxide ) gas

**SenseLife**<sup>TM</sup> Tim8

table multi-indoor air quality monitor

## **What is CO<sub>2</sub> gas?**

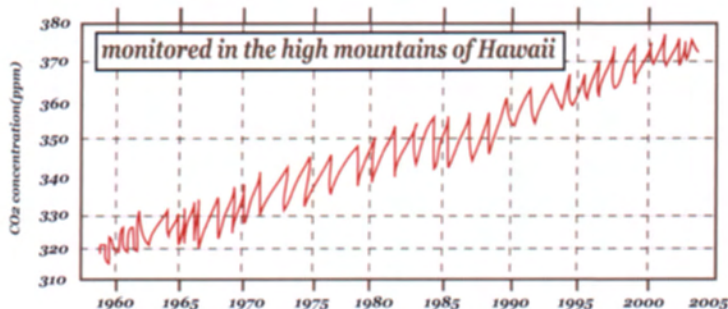
People breathe in Oxygen(O<sub>2</sub>) and breathe out CO<sub>2</sub>. This will increase in concentration of CO<sub>2</sub> in the room and start to contaminate the air quality. Besides micro dusts, chemicals and other polluting elements, mostly CO<sub>2</sub> gas concentration is the major polluting element of indoor air quality. This usually happens where a high number of people are together. The concentration level goes up where there are many people and no ventilation system.

CO<sub>2</sub> gas is colorless, odorless, and intangible which cause direct harm on human body. The best way to run the air quality system is to measure the amount of CO<sub>2</sub> concentration and then control the ventilation system with it. There is 400 ppm of CO<sub>2</sub> (0.04%) gas in the atmosphere and it is increasing at the moment.

## **The major factor of global warming**

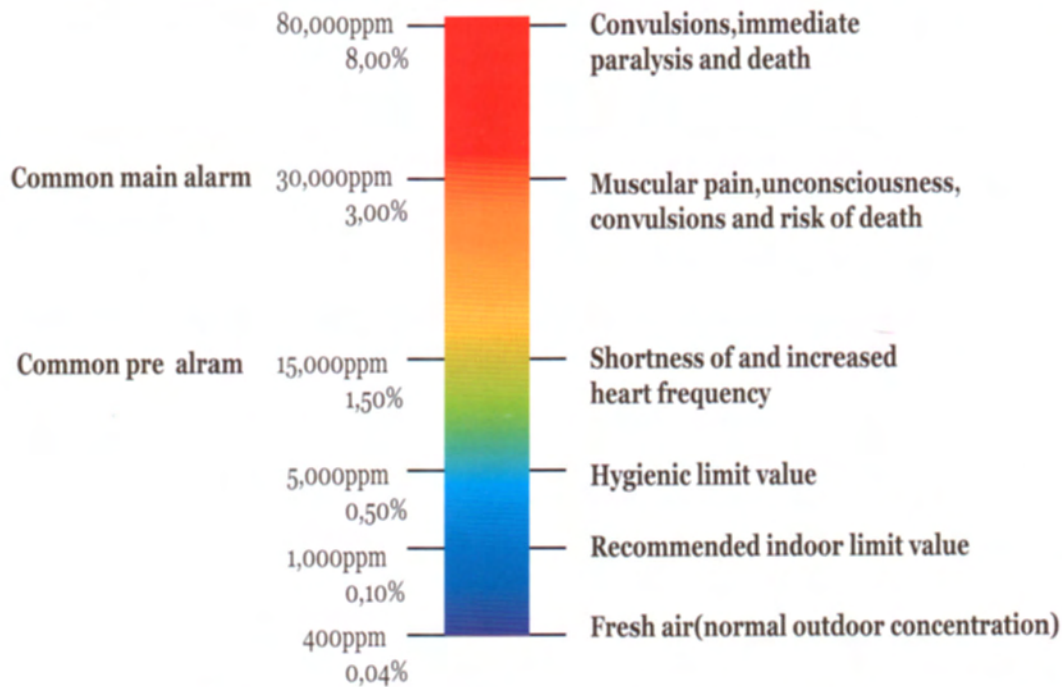
The United Nations concluded the Kyoto plan to reduce the greenhouse gas which is carbon dioxide. It is being noticed as a principal factor of global warming, which causes abnormal weather and natural disasters. It is creating enormous damage on human race. This is all due to the increase of vehicle and industrial development. Many countries continue to reduce CO<sub>2</sub> gas. The amount of CO<sub>2</sub> concentration is increasing as time goes.

## **Global carbon dioxide increase in the atmosphere**



# CO<sub>2</sub> concentration and how does it affect on the human body

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**CO<sub>2</sub> (carbon Dioxide) concentration ppm(%)**

# product specification

## (Senselife Tim8)

**SenseLife**<sup>TM</sup> Tim8

*table multi-indoor air quality monitor*

- name: multifunctional table indoor air quality and environment monitor
- code name: Tim8
- temperature indication
- indoor temperature should be in use :  $-20^{\circ}\text{C} \sim 50^{\circ}\text{C}$  ( possible to indicate in  $^{\circ}\text{F}=9/5\text{C}+32$  )
- storage temperature :  $-30 \sim 70^{\circ}\text{C}$
- temperature accuracy :  $\pm 1^{\circ}\text{C}$
- sensing rate: moderately fast
- humidity indication
- indoor humidity indication: RH%
- range of humidity indication : 30 - 80%RH(display)  
accuracy of humidity : within  $\pm 5\%$
- CO2 concentration indication and warning alarm
- measurement range: : 0-9,999ppm
- indication: digital number in the unit by 1ppm
- indoor air quality level indication: Good, Normal, Poor
- Air quality level according to CO2 concentration  
standard set value under 800ppm: Good (user can set new value)  
standard set value between 800~1200 ppm : Normal (user can set new value)  
standard set value : above 1200 ppm (user can set new value)  
standard set value over 5000 ppm (user can set new value)
- temperature and humidity, CO2 warning alarm
- temperature: alarm will be on below  $12^{\circ}\text{C}$ , above humidity 55% and the waterdrop sign will be also on. But after 10 pm no alarm will be on only the waterdrop and temperature will be on.  
  
All alarm will be off after 10 PM  
Except when CO2 concentration is over 5000ppm, alarm will be on.  
when the humidity is over 60% only the waterdrop sign will be on.  
when the humidity is under 30%, 'Lo' sign will be on (no alarm)
- morning call: the alarm will be on the time user has set. Alarm will go on for 1 minute ( push any button to stop) morning call alarm will go on for 5 minutes : 3 times repeat and on for 1 minute unless it is not turned off by push any button
- time set : user can set the present time
- reset function : return to initial value from manufacturer
- power for the clock: time is set for two months with the battery power. however after 3 months the time has to be reset when the battery is put back.
- standardized CO2 sensor  
measured gas: CO2 Carbon dioxide  
method of measurement: None Dispersive Infra Red  
how to sample the measuring gas: diffusion  
range of measurement: 0-9999ppm CO2  
method of indication: digital display( 4 digits)  
accuracy of CO2 sensor:  $\pm 50\text{ppm} + 5\%$  sensing value  
warming up period: 30 seconds  
sensing pace : every 2 second  
data communication : I2C bus
- standard adaptor  
input: AC 220V / 110V , 50/60Hz  
output: DV 5V 1000mA

# Standard features

**SenseLife**<sup>TM</sup> Tim8

*table multi-indoor air quality monitor*

|                             |                                         |
|-----------------------------|-----------------------------------------|
| Model                       | SenseLife Tim8                          |
| Power supply                | AC 220V/11V , DC 5V , 1000mA            |
| Power consumption           | 60mA(max 130mA)                         |
| Display                     | Clock/Calender/Temperature/Humidity/CO2 |
| Size:W x H x D (mm)         | 115 x 108 x 63                          |
| Weight                      | 180g                                    |
| Temperature measuring range | 0℃~50℃( 32°F~122°F)                     |
| Humidity measuring range    | 30-80%RH                                |
| CO2 measuring range         | 0-9999ppm                               |
| Setting mode                | Morningcall/Time/CO2/Dew point          |

## ***maintenance and other safety precautions***

- please clean it with soft and dry cloth for dusting.
- do not press the button too hard it will cause a breakage on the product. Press the button with moderate amount of force.
- do not put where it is too hot or high density of humidity. It might give out slightly different temperature and humidity values compare to actual values.
- do not lay facedown or the other way. It might give out slightly different temperature values compare to actual values.
- In case of malfunction, do not dismantle or modify. Please contact a place purchased.

## ***storage***

- in case of not using, please store the product in clean area with packaging box.
- after a long period of storage, the time and date will be required to reset use it after resetting the proper time and date.
- please store the user's manual with the product for your convenience.
- In case of malfunction, do not dismantle or modify. Please contact a place purchased.