



# CO<sub>2</sub>/Temp./RH DATA LOGGER

## User Manual



HT-2000

### Dongguan Xintai Instrument Co.,Ltd.

④ Add: Building F, No. 13-16, Hongye Industrial Zone, Tangxia community, Tangxia Town, Dongguan City  
Postcode:523710

📞 Tel:+86-769-82612006

☎ Fax:+86-769-82612005

🌐 Website:www.hti-meter.com

<https://hti-instrument.com> [www.xintest.en.alibaba.com](http://www.xintest.en.alibaba.com)

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## Product Introduction

Thanks for buying **CO2/TEMP/RH DATA LOGGER**.

It's used for measuring **CO2** concentration, temperature, humidity, dew point temperature and wet bulb temperature. T

Too much **CO2** indoor will easy cause tired, not concentration, even cause sick building syndrom. A good indoor environment will be benifit to body health and also improve body immunity, reduce the disease rate. Carbon dioxide meter also has important function in agriculture. Such as vegetable greenhouse. During the day because of photosynthesis, carbon dioxide will become very low which affect the vegetable grow up if don't supply carbon dioxide in time. It will reduce loss if using the carbon dioxide meter in time. Carbon dioxide meter is widely used in factory,workshop, green house,clean room , industry and agriculture, wine bar, hotel, hospital, shop market, airport, railway station, entertainment hall and moive theater etc.

## Carbon Dioxide Grade Guide

Non-coerciveness reference grade:

- a) 250~350ppm — ordinary level of outdoor air
- B) 350~1,000ppm — typical data of good living environment
- C) 1,000~2,000ppm — the level of shortage oxygen,
- D) 2,000~5,000ppm — the level of bad and hot air. Cause headache, sleepiness, less concentration, heartbeat faster and mild nausea.
- E) > 5000ppm-it can cause severe hypodis, lead to permanent brain damage, coma and even death.

## Button Function

**Power:** on/off button.

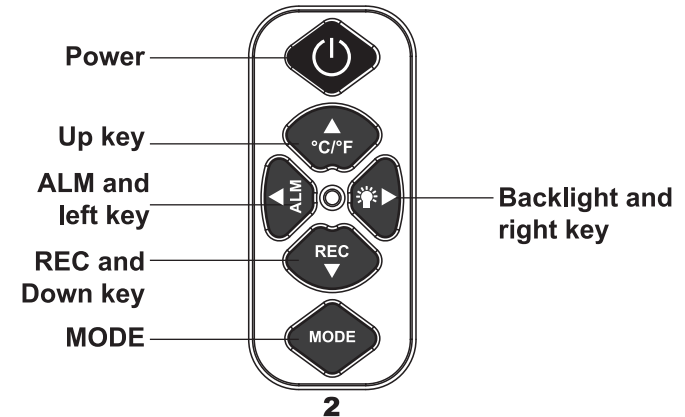
**°C/°F and Up key:** 1. It can set the data higher.  
2. The button toggles between celsius and Fahrenheit

**ALM and left key:** 1. When in the main setting interface,turn on/off the CO2 concentration alarming.  
2. this key can choice function between date / month / year, time and CO2 concentration alarming .

**Backlight and right key:** 1. When in the main setting interface,turn on/off the backlight. 2. When switch pattern of date/month/year, time and CO2 concentration alarming, pressing this key to confirim.

**REC and Down key:** 1. It can set the data higher.  
2. Under the automatical mode, the button is opened and start to measure.

**Mode:** Change into different pattern.



## Display Description:

1) *CO2 displaying zone:*

**PPM:** CO2 concentration displaying

**CO2:** Co2 displaying

**MON:** Count unit of "Month"

**Day:** Count unit of "day"

**MIN:** Count unit of "minute"

**SEC:** Count unit of "second"

**REC:** recording

2) *Temperature displaying zone*

**°C/°F:** celsius, Fahrenheit

**YEAR:** Count unit of "year"

**HOUR:** Count unit of "hour"

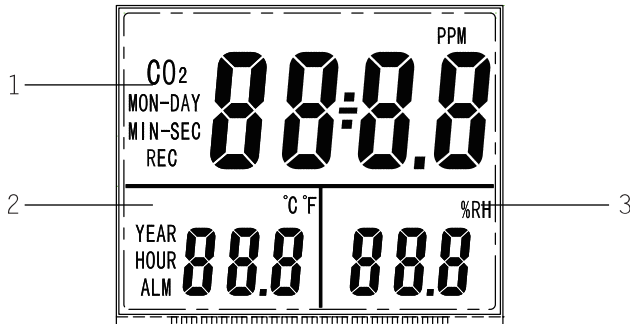
**ALM:** Alarm Reminding

3) *Humidity displaying zone:*

**%RH:** humidity displaying

## Features

- Super large LCD simultaneously display and log CO2 Level, Temperature, Relative Humidity, Calendar (Y / M / D) and Time (clock)
- 12700 data logging memory
- **WARNING CARBON DIOXIDE LEVEL !**
- Stable NDIR sensor for CO2 concentration
- NDIR (Non-Dispersive Infrared) WAVEGUIDE TECHNOLOGY WITH ABC (Automatic Background Calibration)
- High and Low threshold setting
- Backlight Function
- Recall MAX and MIN reading
- LONG TIME DRIFT COMPENSATION
- Comes with Power Adaptor (choose one from the available plug US/ UK/ AU/ EUR)



## Specifications

**Large LCD Display:** 3.5" (8.9cm) LCD display with backlight

**Logger mode:** Key start/ stop, Immediately, Schedule, Real-time & Roll-over

### ***Carbon Dioxide (CO2)***

**Range:** 0~9999 (out of scale)

**Accuracy:**  $\pm 50\text{ppm} \pm 5\%\text{rdg}$  (0~2000)

**Response time:** 10sec

### ***Temperature***

**Range:**  $-10.0\sim 70.0^{\circ}\text{C}$  ( $14\sim 158^{\circ}\text{F}$ )

**Resolution:**  $0.1^{\circ}\text{C}/^{\circ}\text{F}$

**Accuracy:**  $\pm 0.6^{\circ}\text{C} / \pm 0.9^{\circ}\text{F}$  ( $0\sim 50^{\circ}\text{C} / 32\sim 122^{\circ}\text{F}$ ), others  $\pm 1.2^{\circ}\text{C}$

### ***Humidity***

**Range:** 0.1~99.9%

**Resolution:** 0.1%

**Accuracy:**  $\pm 3\%$  (10~90%)

**Logging Memory:** 12700

**Operating Condition:**  $0\sim 50^{\circ}\text{C}$ , 0~95%RH

**Storage Condition:**  $-20\sim 60^{\circ}\text{C}$ , 0~99%RH

**Sensor life:** 15 years in normal comm.

**Power Supply:** 1A Output 5V AC Adaptor

## Using Steps

Open DC power adapter, one side connects to the electrical power, the other side connects to the power of product, then it can work.

When working outside with no lectrical power, it should be worked with battery (alkaline battery, AA\*4) when product is working, the LCD will display 30s count down, that means it is preheating now. when countdown is finished, the product will be displayed normally, then it will show three parts, the above section shows CO2 concentration, the left section shows temperature, the right section shows humidity.

## Modify Setting

Hold down "MODE" key for two seconds to enter setting of carbon dioxide alarm value. Press the left and right key to select the position to be changed. The selected figure will be flashed. Press up and down keys to adjust value of flashed position. After completion of setting, press "MODE" key to save and enter setting for the next item. The same method is used for setting of "year, month, day" and "hour, minute, second". After completing time setting, press "MODE" key to save and return to the measurement interface.

Note: The factory default carbon dioxide concentration alarm value is 2000PPM.

## Software Installation:

First, open the disk, if you need to install English software, please choose this file: “HT2000X(setup)”, the steps please see the below:

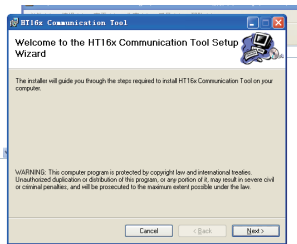


Or enter the download center through the official website [www.hti-meter.com](http://www.hti-meter.com) to find: “CO2(english)” download, the installation method is the same.

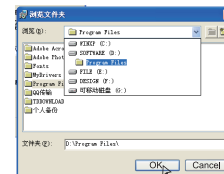
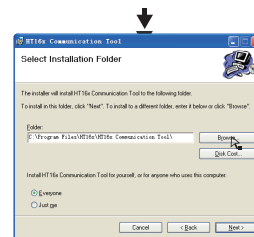
Choose the file of “Setup”, please see the picture as below:



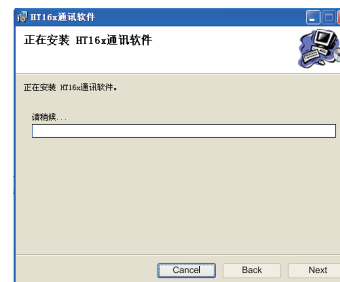
We will enter into the Installation page, please click the button of “next step”, please see the picture as below.



Next, we need to choose the install location, Click the button of “Browse”, then you can choose the install location as you required, pls check the picture as below:



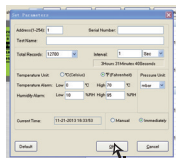
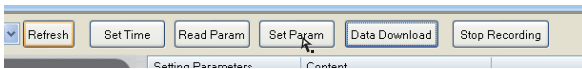
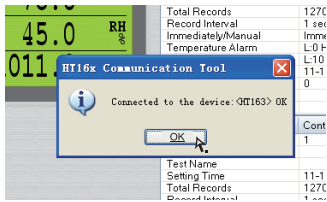
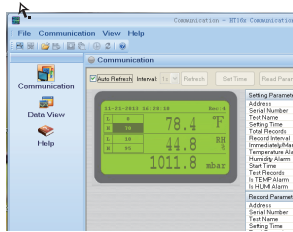
After clicking the button of “OK”, then please click the button of “next”, it enters into next page, Click the button of “next” again, it begins to install, please see the picture as below:



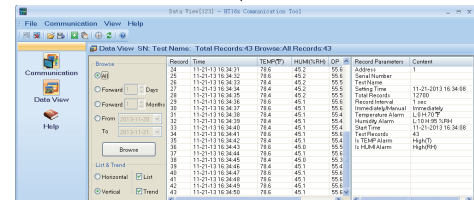
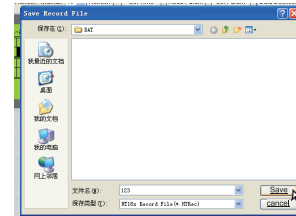
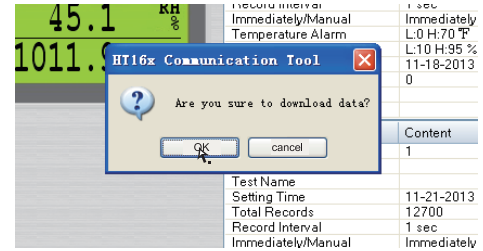
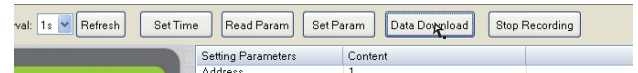
When it is finished, please click the button of “close”, then the software is installed completely.

## Software Use

After you installed the software, please insert the instrument to the USB interface, next operations please see the diagram



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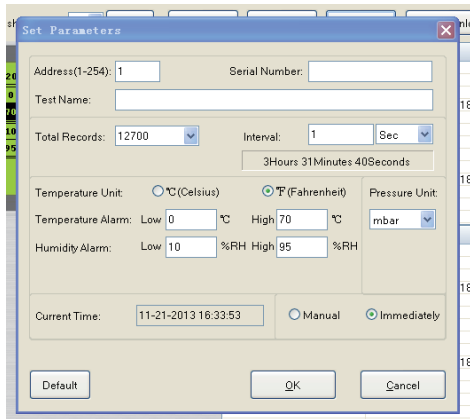


We can read the correct datas according to the arrow indicate method.

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However, many times, we need to go outside to measure data, it is difficult to connect to the PC, then, we can measure it manually, after that we can take the received data home and connect them to a PC, then you can view the data. The detail steps please check the below:

First, we need to connect the instrument to a PC and set the data. After connecting, please click the “data setting” button then enters into the data setting page, please see the picture as below:



The setting of parameter is quite same as we've mentioned before, the only differences are that 1, we need to change the “instant measuring ” into “manual measuring ”.

2, After finishing setting, we need to exit the software and unplug the wire.

3, Take the instrument outside, at first please press the “REC” key. When we connect the instrument to a PC via usb data line, we need to click the button of “data acceptance”, then the steps are same as above, then the data we are receiving now is that we've measured before outside.

Attention: the data cannot be recorded overly, that means each time you do the “setting parameter” steps, the data which was recorded before will be cleaned up, therefore please save your measuring data timely.

## Battery Replacement and Notes

When the LCD displays not clearly, that means the battery is with low power and you need to change the battery immediately. Uncover the battery cover which is located in the back, then replace the battery.