

# Wireless Connectivity Formaldehyde Meter / Data logger



It can measure harmful gas value, current ambient temperature and humidity data at any time and anywhere

## Model No.:

Model No.: MS-WFD (External wireless module)

Model No.: MS-BFD (Bluetooth Integrated)

Model No.: MS-BMFD (Bluetooth with memory Integrated)

Thanks for purchase MEET'S Formaldehyde meter

## 1. Contents

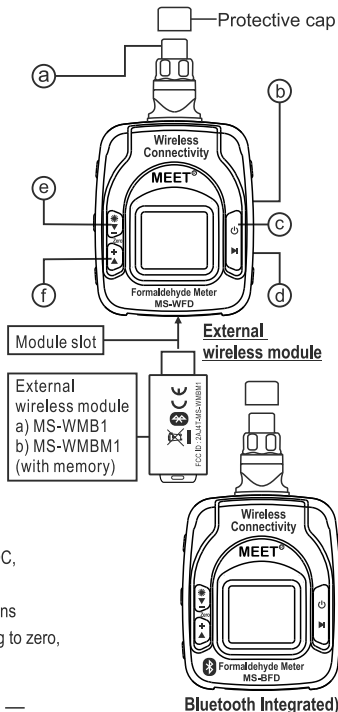
- Formaldehyde
- Operating manual



— 1 —

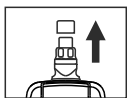
## 3. Description

- Ⓐ Formaldehyde sensor
- Ⓑ Temperature / Humidity sensor
- Ⓒ ON / OFF button 'ⓐ'
- i) Press and hold for 3 seconds, Power ON / OFF the unit
- ii) Press once to switch measuring mode HCHO ↔ TVOC
- Ⓓ Type C USB Power input terminal (DC 5.0 V / 0.5 A input)
- Ⓔ Setting button 'ⓑ'
- i) Press for 3 seconds to ON/OFF the backlight
- ii) Short press to switch the mode Normal ↔ Max (display the measured Maximum only)
- Ⓣ Setting button 'ⓓ'
- i) Press for 3 seconds to ON ('Tx' blinks) / OFF the wireless connectivity,
- ii) Short press, during measuring HCHO/TVOC, to change the unit 'PPM' ↔ 'mg / m<sup>3</sup>'
- ⓔ + Ⓣ During HCHO / TVOC, press and hold buttons 'ⓑ' and 'ⓓ' for 3 secs to adjust the reading to zero, the LC will display 'Zero'.



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## 7. Caution before using



Remove the protective cap before using

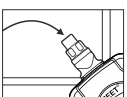


To ensure getting the accurate date, Auto calibration check for 4 mins. is necessary before measuring. Please wait patiently.



When the interference gas is too much that causes false reading

## 8. Notes for zeroing



**Zero Environment:** put the meter by the widow or in the outdoor with good ventilation and ensure it far away any sources of pollution .

**Zero time :** If the meter is on for a long time, you can began to zero after five minutes; if the meter is just starting to turn on, you can began to zero after fifteen minutes at least. The measurement results is more accurate when the placing time is extended appropriately.

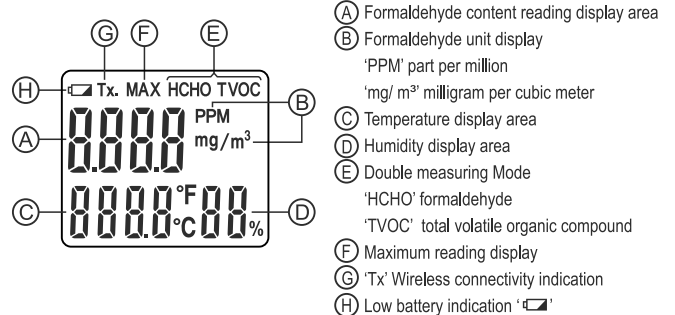
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## 2. Specifications

Model No.:	MS-WFD	MS-BFD	MS-BMFD
Operating voltage	4.5 V		
Operating current	< 150mA		
Standby current	< 10uA		
Formaldehyde measuring range	HCHO : 0.000 ~ 3.000 PPM (0.000 ~ 4.020mg / m <sup>3</sup> ) TVOC : 0.000 ~ 3.000 PPM (0.000 ~ 10.461mg / m <sup>3</sup> ) Over range display 'Hi'		
Ambient temperature measuring range and accuracy	-40.0°C (-40.0°F) ~ 0.0°C (32.0°F) / 0.0°C (32.0°F) ~ 70.0°C (158.0°F) (± 0.2°C (0.4°F)) 70.0°C (158.0°F) ~ 100.0°C (212.0°F) (± 0.5°C (0.9°F));		
Ambient humidity measuring range and accuracy	0% ~ 20% RH / 80% ~ 100%RH (± 5% RH @ 25.0°C (77.0°F)) 20% ~ 80% RH (± 3% RH @ 25.0°C (77.0°F))		
Resolution	0.001 PPM / mg/m <sup>3</sup> ; (temperature) 0.1 °C / °F; (Humidity) 1 % RH		
Max. display	*		
Backlight ON / OFF selectable	*		
Low battery indication	< 2.8 V		
Storage temperature and humidity	0°C (32°F) ~ 60°C (140°F) / < 80% RH		
Standalone mode (without external wireless module)	*		
Wireless connectivity transmit data to Smart phone / Tablet with iOS APPS or Android APPS (require MS-WMB1 external wireless module, sold separately)	*		
Standalone mode or Bluetooth Connectivity transmit data to Smart phone / Tablet with iOS APPS or Android APPS		*	*
Data logger compatible (Bluetooth with memory integrated)			*
Battery powered	3 x AAA (R03 / LR03)		
Dimensions (LxWxD) mm	105 x 54 x 43		
Weight (approx.) grams (without battery)	82		

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## 4. Explanations for symbols and unit



## 5. How to replace the battery

The accuracy can be impaired to measure by using a meter with very low power battery. When the icon 'ⓓ' displays on the LC, it is the time to replace 3 pcs. fresh AAA (R03 / LR03) alkaline type battery. Loosen the screw anti-clockwise and remove the battery cover on the reverse of the unit to install as the correct polarity indicated inside the battery compartment, then reinstall the battery cover. To avoid the chemical leakage from the battery, remove the battery if you are intended not to use the meter in a short period.

## 6. External USB input terminal (Type c)

For long duration operation / monitoring / data logging, use an external power adaptor or battery power bank which have output 5.0V / 0.5A DC and with type c USB plug.

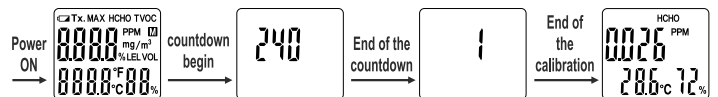
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## 9. How to use

### A) Calibration

- Before using, remove the protective cap, press and hold the Power button Ⓒ for 3 seconds till the LCD is activated to begin to calibrate.

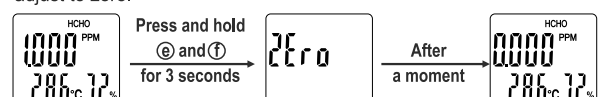
End of the countdown for 240 seconds, calibration will finish automatically



**Proposal to zero the reading always before using for getting more accurate results**

### B) Zeroing

- In 'HCHO' or 'TVOC' mode, press and hold the button ⓔ and Ⓣ simultaneously, the icon 'Zero' will display on the LCD, after a moment, the reading is adjust to zero.

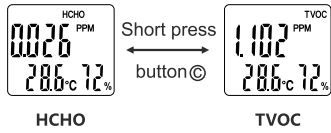


**Please read through carefully 'Notes for zeroing' in the chapter 8 on page 5, ensure to zero in correct method.**

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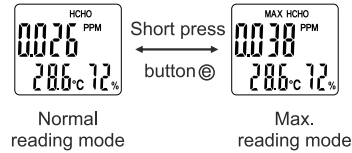
### C) Mode switch

-During measuring, short press the button to switch the mode between HCHO and TVOC.



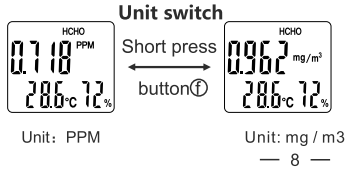
### D) Reading mode switch

-During measuring, short press the button to switch the reading mode between 'Normal reading mode' and 'Max. reading mode'.



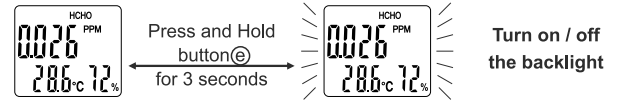
### D) Unit switch

- During measuring, short press the button to switch the unit between PPM and mg/m<sup>3</sup>.  
(The temperature units are automatically matched according to the user's area of the wireless connection)



### F) Backlight ON/OFF

- During measuring, press and hold the button for 3 seconds, to turn on / off the backlight.



### G) Wireless connectivity ON/OFF

- During measuring, press and hold the button for 3 seconds, to turn on / off the wireless connectivity. (for MS-WFD, you must insert the external wireless module first)



## Wireless Connectivity

### 1. Operating the Smart phone / Tablet and the meter

- Need external wireless module (for MS-WFD only), either
  - MS-WMB1 (external wireless module)
  - MS-WBMB1 (external wireless with memory module, for data logging)

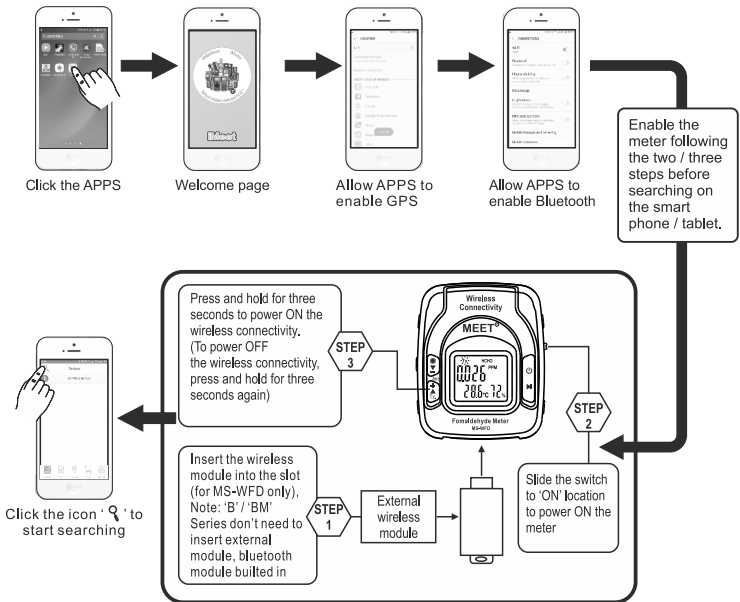
- Bluetooth Integrated (for MS-BFD only)
- Bluetooth with memory Integrated (for MS-BMFD only)

- Download free 'iDMMD' / 'iMEET' iOS APPS from App Store or scan below QR code.

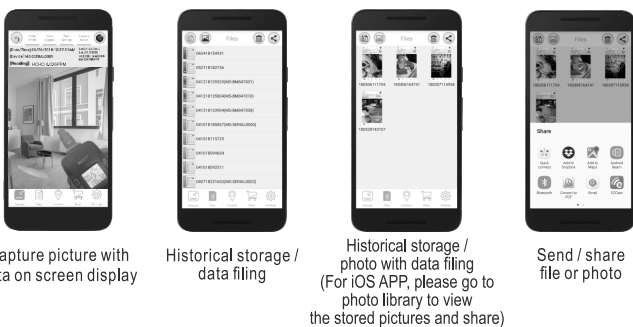
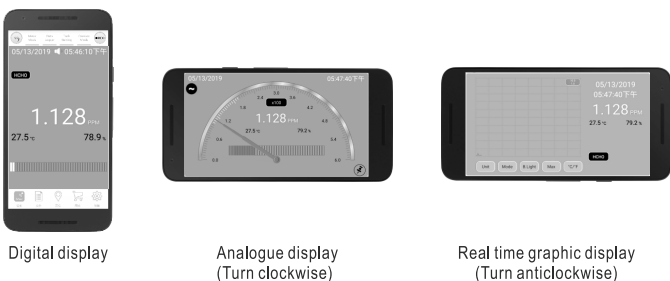
- Download free 'iMEET' Android APPS from Google Play Store or scan below QR code.



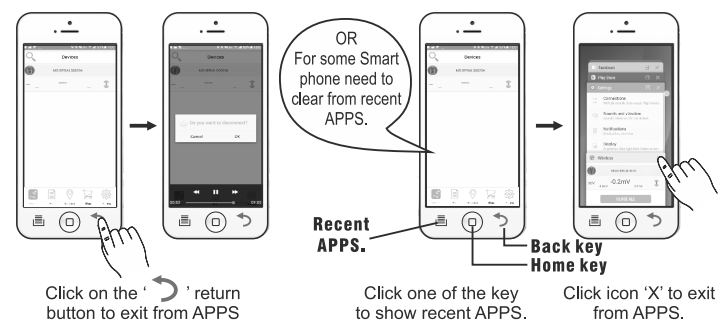
- Click the APPS icon to start connectivity.



### 2. Reading display on Smart phone / Tablet



### 3. Exit from wireless connectivity function



#### Note:

- Remember to disconnect the 'Wireless connectivity' APPS from the Smart phone / Tablet when not in use.
- You may connect the 'Wireless connectivity' if you need to always monitor the meter, but this will restrict the other user can't use the meter at same time.

### 4. Data logging (for MS-WFD / MS-BMFD only)

- Use part no. MS-WMBM1 wireless module with memory for data logger (for MS-WFD only)
- Data logger compatible (Bluetooth with memory integrated) (for MS-BMFD only)

- For long time recording, use external USB power .
- Setting option for data logging is included in same APPS.



Data Logger Compatible

## 5. How to operate device, data log and data download by Smart phone

### a) Home page



Connect the Smart phone to the device, then click the corresponding device to enter operating page



### Display real time reading

- ① Formaldehyde content reading
- ② Current ambient temperature reading
- ③ Current ambient humidity reading

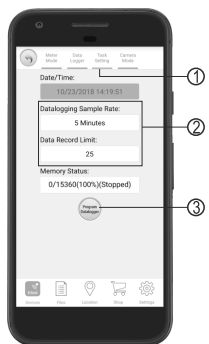
### Operation

In button icon area ④, clicking them enable some functions such as 'unit switching', 'mode switching', 'backlight ON/OFF', 'the Max. reading display'.

### b) Data logging



Click the button ① and then button ②. To confirm setting, click the button ③.

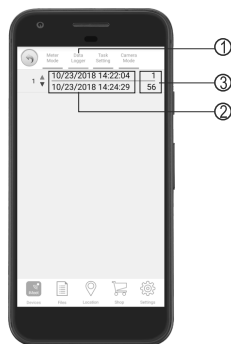


Click the button ① and then select the sampling rate / record limit ②. After, click the button ③.

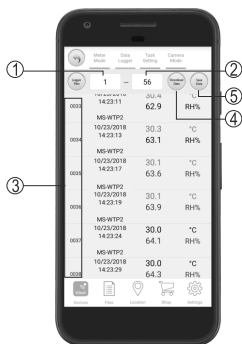


- a) To start logging, click the 'REC' button and it turns to red.
- b) To stop logging, click the 'REC' button again and it turns to white.

### c) Data download

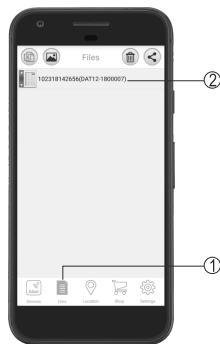


Click the button ① to find the details of data recorded ②. Column ③ indicates each file contains 'Data record limit'. i.e. 56.



To view data, enter data no. in column ① to start and end in column ②. The column ③ indicates data no, i.e. 110

If need to download data to view on Smartphone (began in column ① and end in column ②), click the icon ④ to download, click the icon ⑤ to save



Click the button ① to view / download from:

- ① Smart phone (blank)
  - ② Bluetooth module (with module's name)
- Icon with ▲ means high alarm data recorded inside the file.  
Icon with ▼ means low alarm data recorded inside the file.