



Dr VB800 APP

User Manual

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Preface

Dr VB800 APP monitors and manages the device through Bluetooth transmission to help users have a timely and deep understanding of the current operating status of the device.

This APP supports two types of Vibration Temperature Sensor Device (see P.5 for details on Pairing Devices) :

1. VB-800 / VB-800 Ex
2. VB-800 (ML) / VB-800 Ex (ML)

Smart phone specification requirements:

1) iOS platform: iOS13 or above (including iOS13).

2) Android platform: Android 7.0 and Bluetooth 5.0 or above.

Android phone needs to turn on Bluetooth function and Location function.

After the APP installation is completed, follow the manual below.

TECOM CO., LTD.

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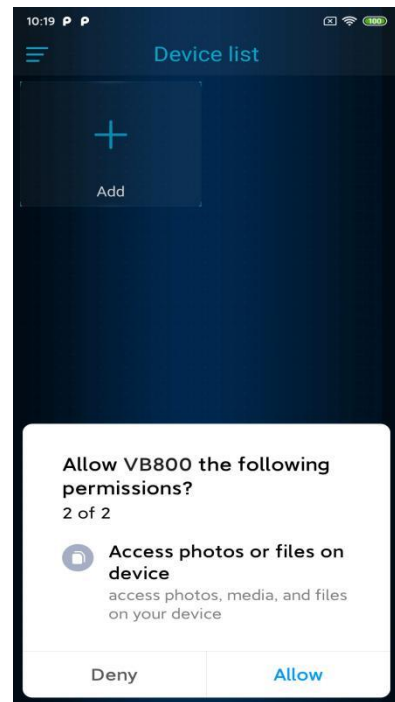
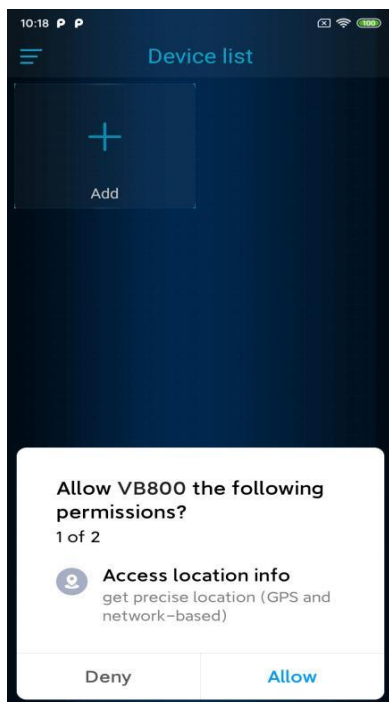
I. Allow APP to run necessary permissions

Click on the "Enter" icon in the boot page to log in to the APP.



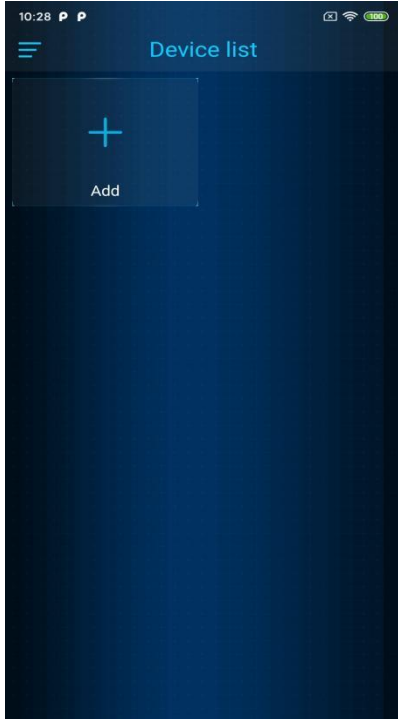
Turn on Bluetooth, and allow the APP to obtain the required permissions (Access Location Info and Access Photos or Files on device).

When Bluetooth is not turned on, there will be a "Bluetooth not enabled" prompt bar above the page.



II. Pairing Device

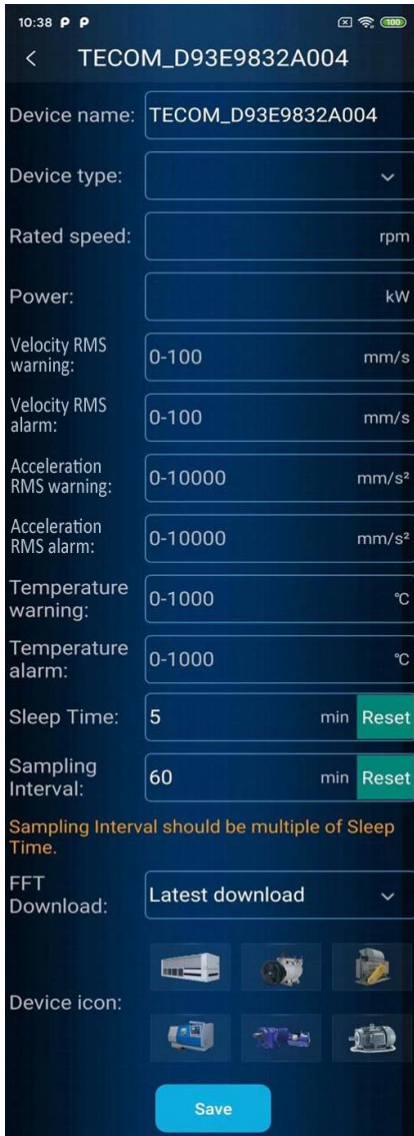
Click the "Add" icon to enter the New Device Search Page for searching new devices. The ID Prefix for Sensor Device type VB-800 & VB-800 Ex is TECOM_, and the ID Prefix for Sensor device type VB-800 (ML) & VB-800 Ex (ML) is 800ML_.



If the ID of the desired Sensor Device to be paired is not being shown in the New Device Search Page, press the button on that Sensor Device for about 20 seconds until the ID of that Sensor Device is shown in the New Device Search List. Click the ID of that Sensor Device in the New Device Search Page to enter the equipment information setting page.

Note:

- i. **The device cannot be successfully paired without device information.**
- ii. **This APP can be paired with multiple Sensor Devices. However, it is recommended to connect and collect data with up to 5 Sensor Devices at the same time in the same zone.**
- iii. **The Sensor Device can be paired with APP on multiple Smartphones. But at the same time, the Sensor Device can only be connected with one Smartphone APP and upload data to the Smartphone APP. After the Sensor Device Data is uploaded to Smartphone APP, the data would be cleared from the Sensor Device.**



The default value of Device name, Sleep Time, Sampling Interval, FFT Download have been automatically filled and user can modify them.


Some options are without default value and should be filled by users. They are: **Device type, Rated speed, Power, various Warning & Alarm values and Device icon.**

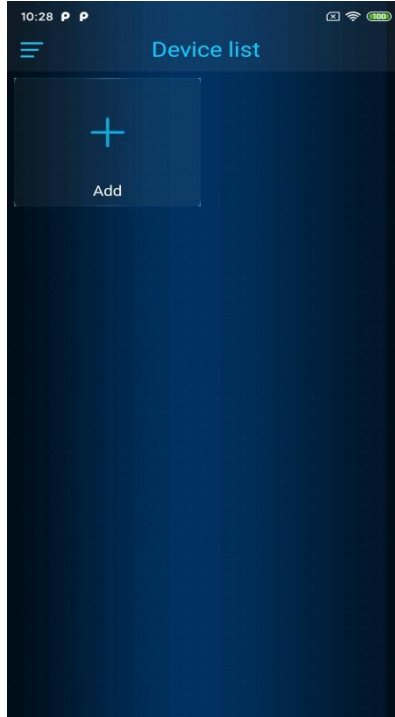
When the device type is VB-800 ML/VB-800 Ex ML, Extra Electricity warning, Extra Electricity alarm, Electricity price, and Carbon emission factor will be added.

Note:

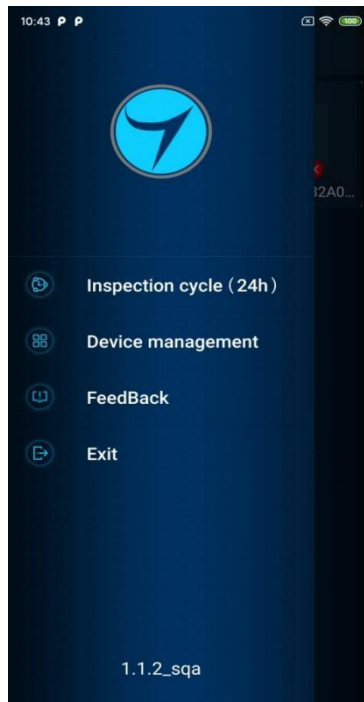
- i. **The Sampling Interval represents the time interval between two samples. The sensor can only perform the sampling when the sensor is in non-sleep time periods. Therefore, the Sampling Interval is recommended to be the multiple of the Sleep Time. If the filled time is not the multiple of the Sleep Time, the multiple will be rounded.**
- ii. **Sampling Intervals lower than 15 minutes will seriously shorten battery life. Please pay attention when setting it.**

III. Setting

Click the  icon at top left corner to enter the “Setting” page.

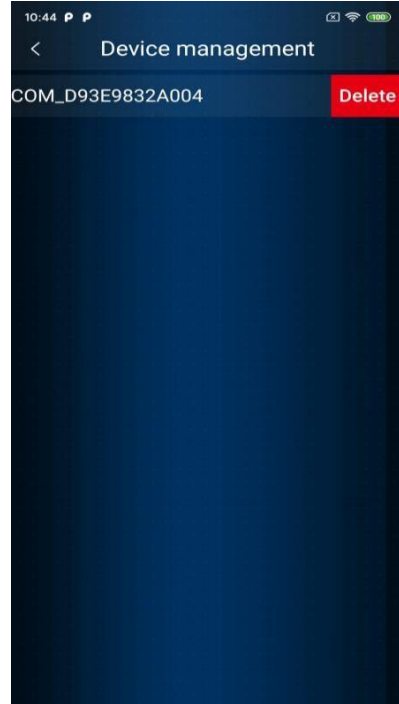


Setting includes: Inspection cycle, Device management, Feedback, and Exit. At the bottom of the page is the current APP version number.



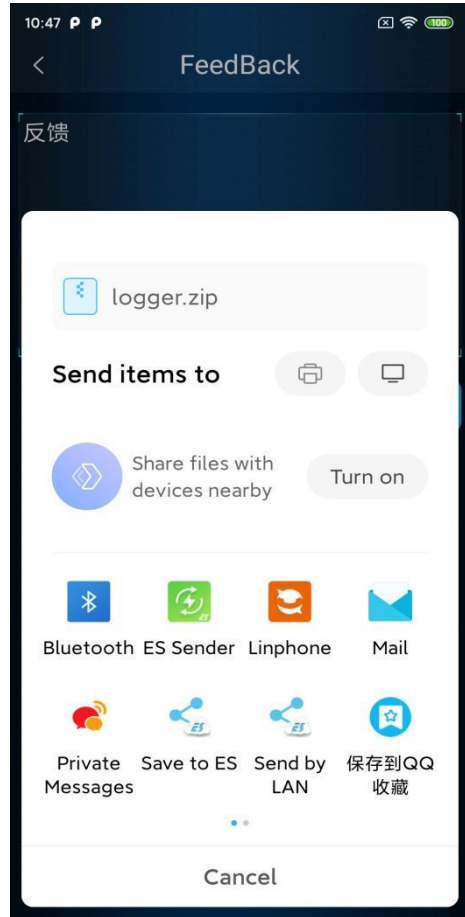
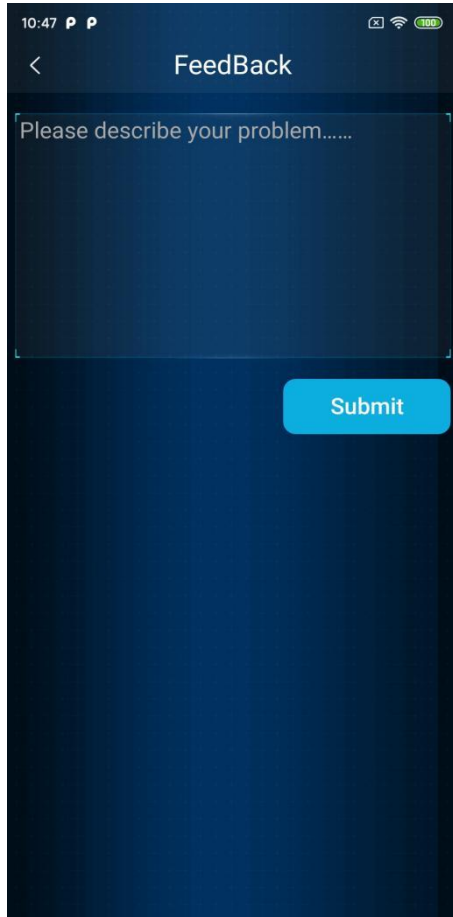
1. Device Management

On the Device Management page, all paired devices will be shown. The icon on the left shows the current connection status of the device. Right-slide the device item, “Delete” icon will be shown to delete it. The device will disconnect after it is deleted, and the information of that device will not be displayed again.



2. Feedback

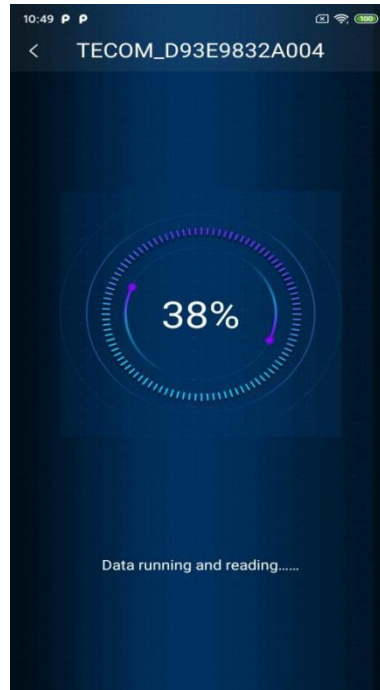
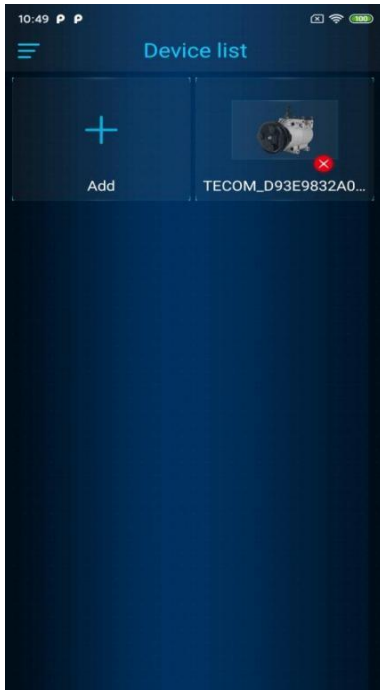
Describe the problem in the feedback box, click “Submit”, select “Mail” to send us the logger.zip file.



IV. Device Details

After the device information is successfully saved, go to the Device list page. Paired devices will be shown here. The bottom right corner of the device icon picture indicates the current device connection status. **Purple ✓ : Connect;** **Red ✗ : Disconnect**

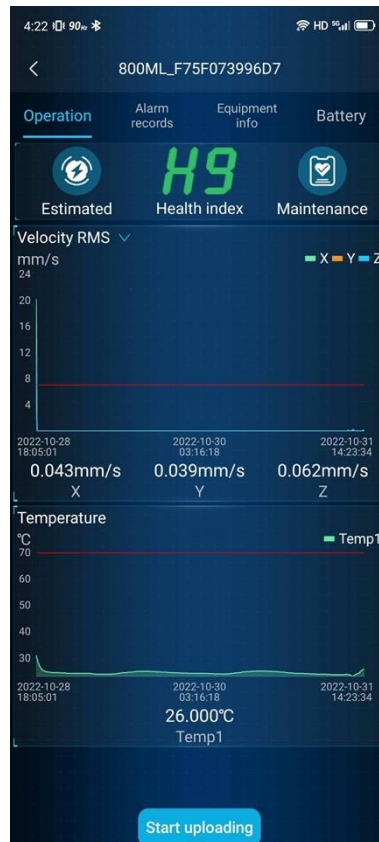
Click the device, device details and collected data will be uploaded and then go to the device details page after the loading progress is completed. **After the device details and collected are uploaded to APP, it will be cleared from the device.**



Device details page contains three types of information: **Operation, Alarm records, and equipment information.** Pull the page down to view the current device **Battery level.**



VB-800 (ML) & VB-800 Ex (ML) supports the new Electricity Waste Estimation function.

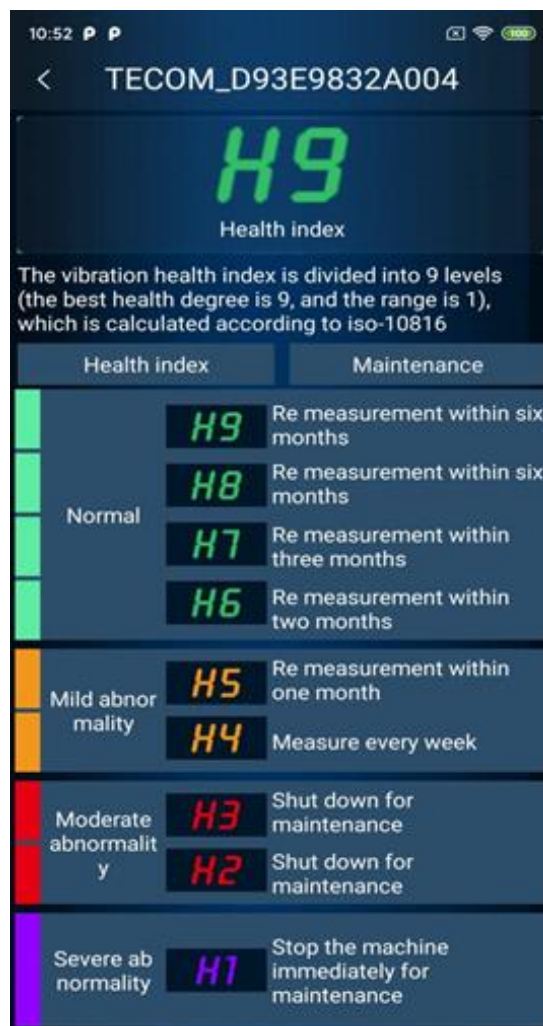


1. Operation

Operation includes current equipment health, chart information for RMS & FFT of velocity & acceleration and temperature.

① Health Index

The values and colors of the Health index represent the current equipment health level. Enter the Health index introduction page by click the Health index icon on the Operation page.



② Chart

The red line on the chart represents the current alarm level. The X, Y, Z icons on the right of the chart are points to set whether the axis information is displayed in the chart. The information in the chart is RMS data and FFT data with a maximum display of 720.



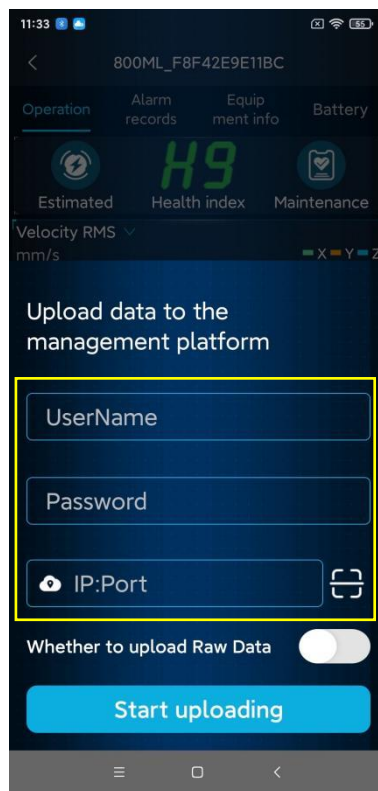
③ Data upload to Tecom MHEW cloud platform

Click the “Data upload” button to pop up the information input box. Enter the Information of the Tecom MHEW management platform and click to upload. This process will upload all of the newly collected data (Max. data capacity of 720) . During the upload process, the current upload progress is displayed.

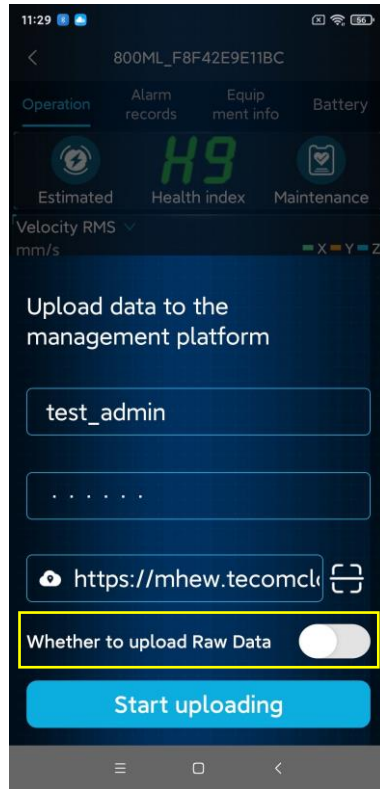
Note: When using this function for the first time, just simply enter the Account, Password and IP address (Cloud Service URL). No need to do anything on the cloud platform.

a) Enter the Account, Password and IP address (Cloud Service URL):

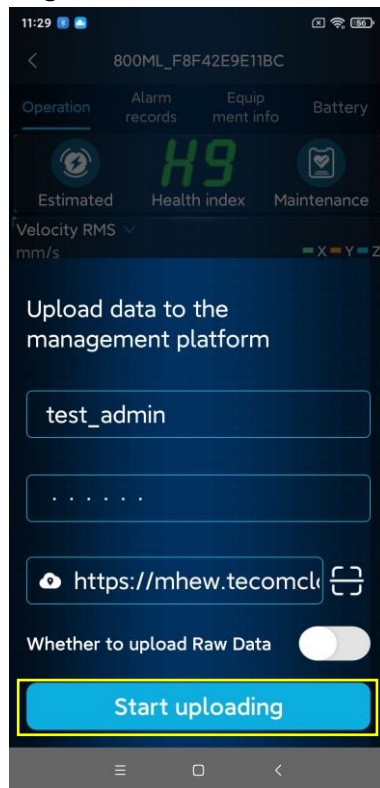
Note: All these information can be obtained from the Tecom Cloud Service Card.



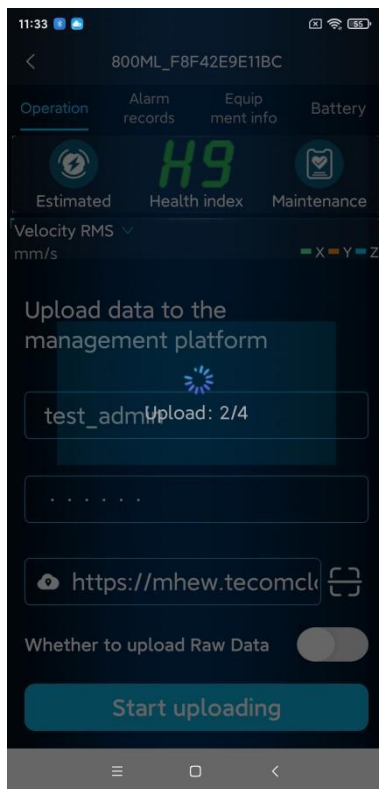
b) Select “Whether to upload Raw Data”:



c) Click “Start uploading”



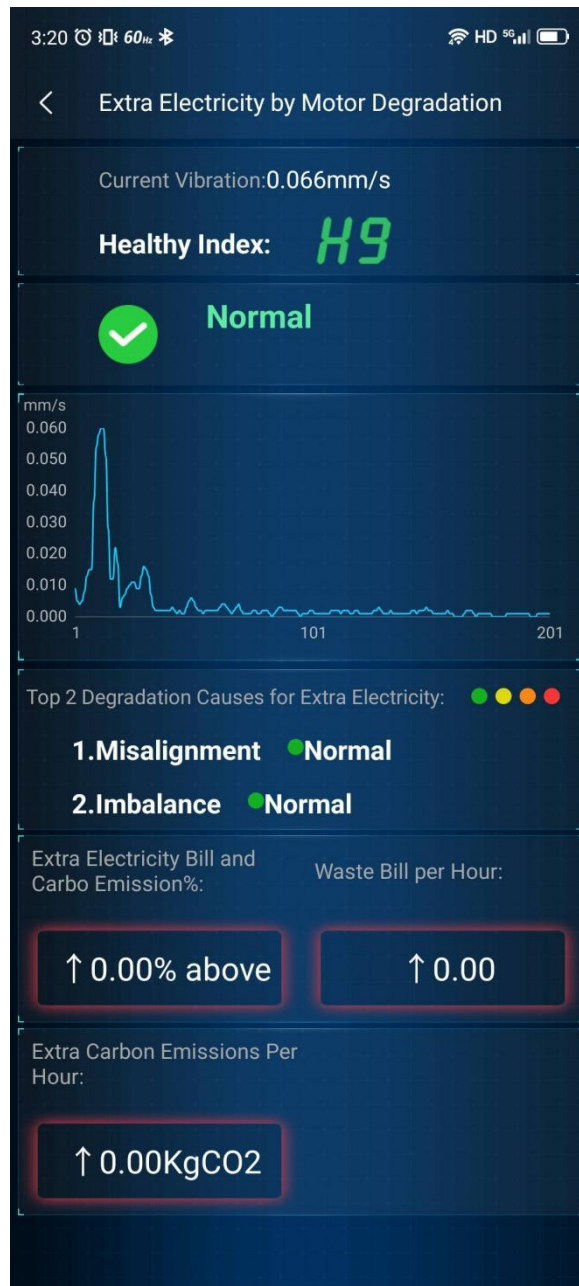
d) Data uploading



④ Estimation of Electricity Waste

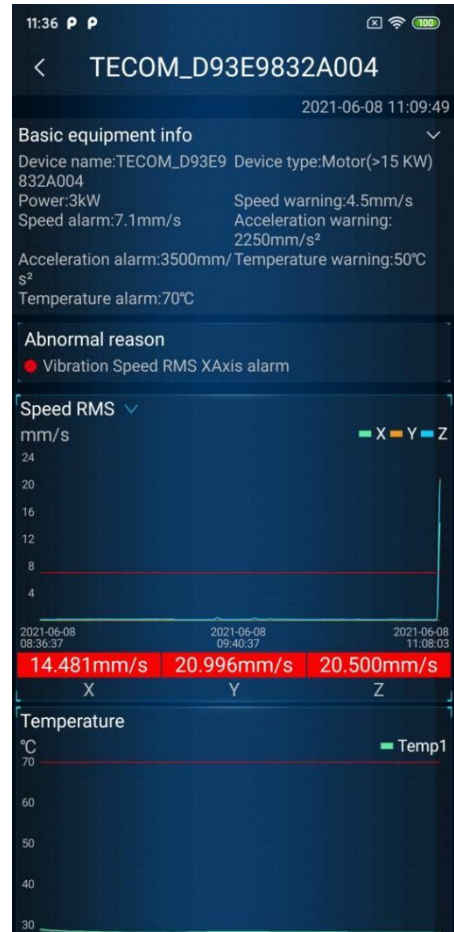
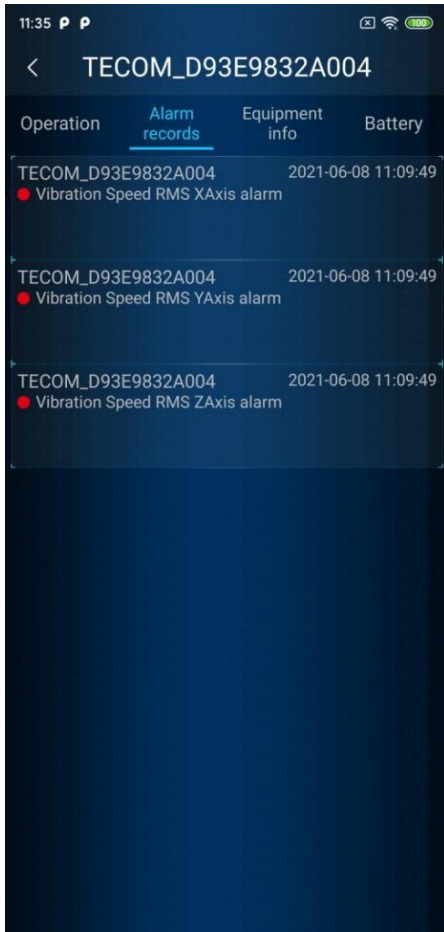
[For VB-800 (ML) & VB-800 Ex (ML)]

This function is available for the Sensor Device type VB-800 (ML) / VB-800 Ex (ML). It shows the Degradation Causes for Extra electricity, Extra Electricity Bill and Carbon Emission estimated %, Waste Bill per Hour, Extra Carbon Emission Per Hour.



2. Alarm Records

The information list of all the current alarms and warnings are displayed. User can select a record to check the details of the alarm or warning.



3. Equipment information

On the Equipment information page, user can modify equipment information. Modification rule is consistent with the setting information rule after pairing a new device mentioned in Section II. Please refer to Page 6 for reference.

Note: The modified information will take effect after the next successful connection to the device.

① Equipment Information of the VB-800 / VB-800 Ex sensor device:



The screenshot displays the 'Equipment info' page for a device with ID 'TECOM_EB84B5513FE2'. The page is divided into four tabs: 'Operation', 'Alarm records', 'Equipment info' (selected), and 'Battery'. The 'Equipment info' tab contains the following settings:

Field	Value	Unit
Device name:	TECOM_EB84B5513FE2	
Device type:	Motor(<=15 KW)	
Rated speed:	3600	RPM
Power:	250	kW
Velocity RMS warning:	1.8	mm/s
Velocity RMS alarm:	4.5	mm/s
Acceleration RMS warning:	900	mm/s ²
Acceleration RMS alarm:	2250	mm/s ²
Temperature warning:	50	°C
Temperature alarm:	70	°C
Sleep Time:	1	min

At the bottom of the page, there is a 'Save' button and a 'Reset' button.

② **Equipment Information for VB-800 (ML) / VB-800 Ex (ML):**

“Machine Learning” and “Electricity price” are the new items for these Sensor Device Types. They are for Electricity Waste Estimation function. Enter the unit price of electricity of your region in “Electricity price” field. Click “Start Learning” to perform Machine Learning and Electricity Waste Estimation.

Note: Before “Start Learning”, please check:

- i. **The Health index. If the Health index is H7-H1, please do not activate the “Machine Learning” function! Please give priority to find out the cause of the abnormality. Start “Machine Learning” after the Health index rises above H8 to obtain an accurate Electricity Waste Estimation.**
- ii. **The machine has been operated and 120 operation records have been collected.**

