ANCEL® BM300 Pro

BATTERY MONITOR

⚡ 24V/12V/6V

☑ Suitable for all 24V/12V/6V lead-acid batteries and lithium batteries
☑ Support 24V/12V cranking system test
☑ Support 24V/12V charging system test

INSTRUCTIONS

1. The input voltage range of the device is 【3V~35V】, which is suitable for 24V/12V/6V vehicle (boat) batteries. Too high input voltage will cause equipment damage.
2. In order to obtain accurate battery temperature, please stick the device on the battery case.
3. When installing the app, all permissions to be obtained must be accessed. If the permission fails to be obtained, some functions cannot be realized.
4. Some functions need to allow the app to self-start and run in the background. The app has been optimized for this and will not consume more power.
※ 【Allow the app to start automatically and run in the background】needs to be set in the phone. The setting method is described in detail at the end of this manual.
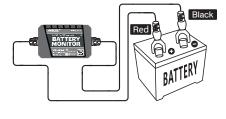
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SPECIFICATIONS

1. Product Name: Battery Monitor
2. Bluetooth Version: BLE 5.3
3. Bluetooth Name: BM300 Pro
4. Input Voltage: DC 3V ~ 35V
5. Voltage Accuracy: ±0.03V
6. 24-hour Average Working Current: 1mA
7. Working Temperature: -30°C~85°C (-22°F~185°F)
8. Reverse Connection Protection: Built in
9. Short-circuit Protection: Built in
10. Physical Dimensions: (L)75mm x (W)50mm x (H)21mm

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MAIN FUNCTIONS

1. Real-time display battery power, temperature and voltage.
2. Support 24V/12V/6V lead-acid batteries and lithium batteries, work for trucks, cars, motorcycles, boats, energy storage batteries.
3. Support 24V/12V cranking system and charging system.
4. Send alarm notification if the battery is abnormal.
5. Support multi-device management, 4 devices can be monitored at the same page.
6. Record the track, cost and driving habits of each trip, can export to Excel file.
7. Record the parking position automatically and provide the CAR FINDER function through navigation.
8. Store historical data in device up to 72 days (voltage, charge percentage and temperature). Save the data every 2 minutes.
9. The historical data will not be lost when the device loses power.
10. The storage of historical data in the app is unlimited.

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DEVICE INSTALLATION

1. Firmly attach the negative connector (black) to the negative battery terminal.
2. Firmly attach the positive connector (red) to the positive battery terminal.
3. Fix the device to the battery case with the supplied double-sided tape.
※ The device must be attached to the battery case, otherwise the accurate battery temperature will not be obtained. Be careful not to choose a ventilated location, which will affect the temperature collection.

(Fig 1)

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APP INSTALLATION

(Fig 2)

ANCEL BM300 Pro
ANCEL BM300 Pro
ANCEL BM300 Pro GET
(Fig 3)

1. Scan the QR code of the product and download the app. (Fig 2)
2. For Android phones, go to "Google Play", and for iPhones, go to "App Store". Search for "ANCEL BM300 Pro" to download the app. (Fig 3)

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APP USE

Location Permission Required
Starting from Android M(6.0) and higher, Android apps need location permission to scan for nearby BLE devices. After selecting "Always" allowed, even if the app is in the background, when it is close to the battery, the battery and related system data will be automatically sent to the App, and a failure will be notified.

OK

Android (Fig 4)

"ANCEL BM300 Pro" Would Like To Send You Notifications
Notifications may include alerts, sounds, and icon badges. These can be configured in Settings.

Don't Allow | Allow
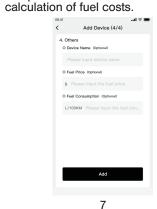
iOS

1. When running the application for the first time, the app will ask for some required permissions, all these are necessary, please select all Allow or switch ON. (Fig 4)
※ The Android app obtains the location permission for the Bluetooth scanning function,which is regulated by the Android system. Disabling this permission will cause the device not to be scanned or Bluetooth scanning is slow. In addition, the track function also needs to obtain the location permission.

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2. Before a device can be connected, a device must be added. To add a device, it is necessary to fill in the device serial number, which can be scanned by bar code or manually filled in. The serial number can be found on the device case.
3. The defaulted device name is the serial number, and it can also be modified manually.
4. Fill in the fuel consumption according to the average fuel consumption. (Fig 5)
※ Incorrect fuel consumption or incorrect fuel price will result in inaccurate calculation of fuel costs.

(Fig 5)

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FAQ AND SOLUTION

• **Phenomenon 1:**
Need to enter a PIN code for Bluetooth connection?
• **Solution:**
When Bluetooth switch is turned on, the system of some mobile phones will automatically list all nearby Bluetooth device name. Please just ignore this PIN code pop-up, this Bluetooth connection no need PIN code. Re-run the app, after adding a new device, it will automatically connect.

• **Phenomenon 2:**
Bluetooth connect fail?
• **Solution:**
Ensure that the Bluetooth switch of the mobile phone is turned on, all requested permissions are allowed, and there are no other phones nearby to connect the device. Then try to restart the Bluetooth or restart the mobile phone.In addition, if the phone Bluetooth is connected with too many Bluetooth devices, it may also cause the Bluetooth not to connect properly.

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• **Phenomenon 3:**
There is no track or parking position for the trip?
• **Solution:**
1. Confirm that the GPS switch of the phone is turned on.
2. Confirm that the app has obtained the permission of the location service.
3. Confirm that the app is running and the device is connected.
4. Confirm that the "GPS Track Service" in the Settings of the app is turned on.
5. Confirm that the app can be started by itself and can run in the background. Detail shows at the end of this manual.

• **Phenomenon 4:**
There is no abnormal alarm notification?
• **Solution:**
Go to the settings of the mobile phone and obtain the application notification permission.

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• **Phenomenon 5:**
The battery power is inaccurate? Can I define the battery level myself?
• **Solution:**
Check the battery type of the device, confirm the battery type selection is correct.
User can aslo select custom battery, can customize power level.

• **Phenomenon 6:**
No car cranking system data?
• **Solution:**
If there is no in-vehicle usage scenario, such as no engine start behavior, there might be no start data.

• **Phenomenon 7:**
The vehicle charging system cannot be tested?
• **Solution:**
The test needs to be performed during engine running. It supports all ordinary alternators. In rare cases, charging test data for smart alternators may be incorrect.

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• **Phenomenon 8:**
The fuel cost statistics are inaccurate?
• **Solution:**
Check whether the fuel consumption per 100KM and the fuel price are correctly filled in.

• **Phenomenon 9:**
The position or driving trajectory is sometimes correct, sometimes incorrect or not obtained?
• **Solution:**
Location information can only be obtained when the app is running.If the app can't be self-started and run in the background, the location data cannot be obtained. It is necessary to give the app the permission to self-start and run in the background, this needs to be operated in the settings of the phone.

1. Samsung mobile phone:
(1) Allow background activity
Settings — Apps — find the ANCEL BM300 Pro app — Battery — turn on the switch of "Allow background activity".

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(2) Allow self-starting
Settings — Device care — Battery — find the ANCEL BM300 Pro app — turn off the switch of "Put app to sleep".

2. Huawei mobile phone:
Settings — Apps — App launch — find the ANCEL BM300 Pro app and select "Manage manually"— Enable "Auto-launch"、"Secondary launch" and "Run in background" at the same time.

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