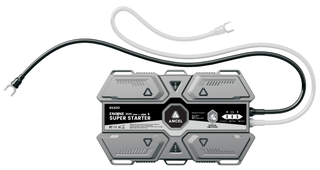
ANCEL

BS400

ENGINE SUPER STARTER

BATTERY BOOSTER

1300A



Instructions for Use

App Download

Available on the App Store

GET IT ON Google Play

1. IMPORTANT SAFETY WARNINGS

⚠ **Danger**

BEFORE USE, PLEASE READ AND UNDERSTAND THE PRODUCT SAFETY INFORMATION. FAILURE TO FOLLOW THE INSTRUCTIONS MAY RESULT IN ELECTRIC SHOCK, EXPLOSION, OR FIRE, CAUSING SERIOUS INJURY, DEATH, OR DAMAGE TO THE DEVICE OR PROPERTY. DO NOT DISCARD THIS INFORMATION.

1. After receiving the product, please first check whether the appearance of the device and the power connection cable have been deformed or damaged during transportation. Please check whether the device makes any abnormal noise when it is slightly shaken. Do not use the damaged device.
2. When the product's discharge indicator light is constantly on, it is strictly prohibited to reverse the polarity or short-circuit the positive/negative terminals of the power connection cable to avoid damaging the device.
3. Please place the product around the car battery and avoid contact with the high temperature area of the engine.
4. This product is only suitable for 12V cars. Please do not use it on non-12V cars, such as 24V trucks.
5. Unauthorized disassembly, modification, or repair of this product is strictly prohibited. Such actions may render the product inoperable and could result in safety hazards and equipment damage.

2. MAIN FUNCTION

1. This product supplies robust power upon vehicle startup, facilitating effortless engine ignition.
2. This product adopts a new type of super capacitor energy storage device, which can be installed on automobiles for long-term use. It features low internal resistance and high power density, and can release large currents instantaneously. It can automatically take over the car battery for large current discharge during engine startup, enabling instant engine startup. After installing this product, the car battery will no longer need to discharge in large currents.
3. The product is equipped with patented super capacitor control circuit technology. Based on intelligent recognition of vehicle start-up mode, it can promptly sense complex working conditions such as cold start in low temperatures and frequent start-stop operations. By virtue of the built-in algorithm, it can dynamically allocate the storage and release of electrical energy between the starter and the car battery. This mechanism can effectively prevent the repeated large current discharge of the car battery caused by frequent engine starts, thereby reducing battery damage and significantly extending its service life.

4. The super capacitor is made of safe and reliable materials. It can undergo 100,000 cycles of charge and discharge without failure. It does not contain flammable chemicals and can completely eliminate the risks of swelling, leaking and firing of lithium batteries and other types of batteries from the source. It complies with vehicle safety standards.
5. Regardless of the condition of the car battery, as long as the battery voltage is above 5V, this product can operate normally and greatly enhance the reliability of the vehicle.
6. The product comes with a visual app, allowing for intelligent monitoring and maintenance of the starter and the car battery. Through the app, it can monitor in real time the key data such as the voltage, current, temperature and capacity of the starter and keep abreast of the working condition of the starter and the health status of the battery at any time.
7. The app can automatically generate vehicle startup logs, comprehensively store key data such as voltage fluctuations and discharge currents, support long-term storage of historical data, and can export in a standardized format.
8. The app can actively send out abnormal warning and maintenance reminder notifications through intelligent monitoring of the starter and the car battery, thus preventing potential faults from occurring.
9. In addition to fully automated charging via the automotive generator or car battery, this product also supports manual Type-C charging. It offers multiple charging methods, such as using a power bank, to meet the requirements of different scenarios.
10. The product has a wide operating temperature range, capable of functioning normally and successfully starting the vehicle in extreme cold and hot conditions ranging from -40°C~80°C(-40°F~176°F). It can withstand bad environments without any problem.

3. PRODUCT INFORMATION

❶ **Manual discharge button:** press and hold to enter discharge mode. Note: do not short-circuit the positive and negative terminals at this time.

❷ **Discharge indicator light (red):**
During discharge - The red indicator light remains constantly on.
Low SoC - The red indicator light is flashing.

❸ **SoC indicator light (green):**
Full - The green indicator light is constantly on.
Charging - The green indicator light is flashing.

❹ **Bluetooth indicator light (blue):**
Bluetooth is connected - The blue indicator light is constantly on.
Bluetooth has been disconnected - The blue indicator light is flashing.

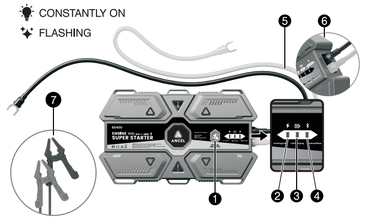
❺ **Device connection cable:**
The black U-shaped terminal is fixedly connected to the negative terminal (-) of the battery.
The red U-shaped terminal is fixedly connected to the positive terminal (+) of the battery.

❻ **Type-C charging interface:** manually charge the starter.

❼ **Alligator clip:**
In emergency situations (e.g., missing or dead battery), assist in connecting the starter's positive and negative U-type terminals to the vehicle's battery cable terminals.

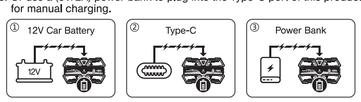
CONSTANTLY ON

FLASHING



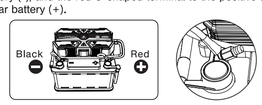
4. CHARGING METHOD

1. It is charged automatically by a 12V car battery. After the starter is installed on the battery, it will charge automatically without any manual intervention. The charging status can be monitored in real time through the app or SoC indicator light.
   Note: Even if the battery is dead or damaged, the starter can be fully charged as long as the battery voltage is above 5V.
2. Or use a (5V/2A) adapter to plug into the Type-C port of this product for manual charging.
3. Or use a (5V/2A) power bank to plug into the Type-C port of this product for manual charging.



5. USING METHOD

1. Connecting the equipment: Keep the vehicle engine off. Connect the black U-shaped terminal of the starter to the negative terminal of the car battery (-), and the red U-shaped terminal to the positive terminal of the car battery (+).



2. Using the App.

① Download and open the "Ancel Super Starter" app. During installation, grant permissions such as location access, notifications, and Bluetooth (Android 6.0+ requires location permission for Bluetooth to function properly).

② Add the device using the device serial number (found on the product label) – the app can also auto-detect it when near the device.

③ Use the app to intelligently monitor and maintain the starter.

④ After first launching the app, please add the device first.

⑤ Check if Bluetooth is enabled and location permission is granted (required for Android 6.0+).

⑥ Restart Bluetooth or your phone: If the connection still fails, restart Bluetooth or reboot your phone and try again.

⑦ Check device installation: Ensure the starter is properly connected to the battery. If it still won't connect, remove and reinstall the starter, then try again.

⑧ Avoid system Bluetooth interference: Do not manually search or pair with the starter via your phone's system Bluetooth settings – this will block the app from connecting. If already paired, unpair it in system Bluetooth, then uninstall and reinstall the app.

3. Smart Startup: After the device is properly connected, the starter will automatically take over the starting process each time the engine is started. Users can simply startup and use the vehicle as normal without any additional operations.

4. Emergency Startup: When the vehicle cannot be started through the third step, user can use either the app for forced startup or the manual button for discharging to forcibly start the vehicle.

① App forced startup: On the app launcher page, click "Force Start", enter a 10-second countdown. Before the countdown ends, start the engine as quickly as possible.

② Manual button discharge: Press and hold the "Manual Discharge" button for three seconds. The red indicator light stays on constantly, the device enters the discharge mode, and the engine starts within 10 seconds after the red indicator light stays on constantly.

Note: Before conducting emergency startup, use the alligator clips to secure the starter's positive and negative terminals. Please ensure that the starter battery is fully charged and the green indicator light is constantly on. After the starter discharges (the red light is constantly on), start the vehicle immediately and as quickly as possible. Do not delay, as otherwise the power may be consumed excessively and the vehicle cannot be started.

6. TECHNICAL SPECIFICATION

Working Voltage Range	5~20V
Maximum Output Voltage	15V
Discharging Current	1300A
Working Temperature	-40°C~80°C(-40°F~176°F)
Service Life	100,000 charge/discharge cycles
Scope of Application	12V Vehicles
Charging Time	Type-C (5V/2A) Charging: 3~40 minutes
	Fast charging by car batteries: 3~10 minutes
Communication Method	Bluetooth BLE 5.3
Average Power Consumption	3mA
Waterproof	IP65

7. FAQ AND SOLUTION

• **Question 1:**
Will the starter catch fire by itself?
• **Answer:**
This product contains no batteries at all. It won't catch fire by itself and is extremely safe. You can use it with confidence.

• **Question 2:**
Why can the starter device extend the battery life?
• **Answer:**
Since the internal resistance of the starter is much lower than that of the car battery, during the start-up moment, the current flows through the starter all the time. The starter thus undertakes the task of discharging the large current. From then on, the car battery no longer bears the heavy load, so its lifespan will be greatly prolonged.

• **Question 3:**
How do I operate the starter?
• **Answer:**
After the starter is installed, there is no need for any operation. Just start the engine directly. This product works fully automatically.

• **Question 4:**
Is it suitable to install a starter when the vehicle is not used for a long time? Will the starter drain the battery?
• **Answer:**
The average power consumption of the starter is only 3mA, which is far lower than the self-consumption of the vehicle and can be disregarded. Moreover, as long as the battery voltage exceeds 5V, the starter can still start the engine normally. This product is particularly suitable for installation when the vehicle is not used for a long time.

• **Question 5:**
Why is the car battery level shown in the app inaccurate?
• **Answer:**
Right after the vehicle is turned off, the battery status is unstable. When the starter is first installed, it needs time to learn the battery's characteristics using AI algorithms. The longer it's used, the more accurate the readings will become.

• **Question 6:**
If my car battery has failed, can I avoid replacing the battery by installing a starter?
• **Answer:**
This product can only solve the problem of starting the engine. When the battery is damaged, the battery capacity is very low and the voltage is significantly reduced. Some on-board systems detect that the battery voltage is too low and will prompt faults, and may enter an invalid state. Therefore, if the battery is damaged, it is recommended to replace it.

• **Question 7:**
Why does the car fail to start using the starter?
• **Answer:**
① The starter should be connected directly to the car battery terminals. Do not connect it to other cables. Check for proper connection and ensure that the positive and negative terminals are not loose.
② Check if the starter has sufficient power. Please use it when the green power-indicator light is constantly on.
③ When using the forced start via the app or manual button discharge, start the engine within 10 seconds.

• **Question 8:**
The Bluetooth connection between the app and the starter failed?
• **Answer:**
① After the first launch of the app, please add the device first.
② Check if Bluetooth on the mobile phone is enabled and if location permission is granted. According to Google's regulations, for Android system version 6.0 and above, app needs to be granted permission for location access in order to use Bluetooth normally.
③ Even though the Bluetooth function and location permission of the mobile phone have been enabled, the connection still fails. Please restart the Bluetooth function of the mobile phone and try to connect again.
④ Confirm whether the starter is correctly connected to the battery. If it has been correctly installed but still cannot be connected, please remove the starter and reinstall it, then try to connect the Bluetooth again.

• **Question 9:**
Why doesn't the starter discharge when the car is starting?
• **Answer:**
Check if the starter fails to discharge due to low power level. It is recommended to use it when the starter is fully charged.

• **Question 10:**
How to wake up the starter in sleep mode?
• **Answer:**
① When the starter is connected to the vehicle battery and remains unused for an extended period, it will automatically enter sleep mode after 20 minutes of inactivity. The starter will wake up upon detecting vibration or a change in voltage.
② When the vehicle engine is starting up normally, the starter will be woken up immediately and start working.

• **Question 11:**
Is the starter suitable for hybrid or pure electric vehicles?
• **Answer:**
Hybrid vehicles have different starting system designs. In some models, the 12V battery is only used for low-voltage power supply and does not participate in engine starting. Therefore, compatibility depends on the specific vehicle model. Pure electric vehicles typically do not have a traditional starting system, so this product is not applicable.

• **Question 12:**
Is the 24V diesel vehicle suitable for installing this product?
• **Answer:**
For a 24V diesel vehicle, please choose a 24V starter. Do not use a 12V starter.

• **Question 13:**
Does installing this product have any impact on the car?
• **Answer:**
Not only in theory, but also after a large number of long-term actual tests, this product has no impact or harm on the car, so please feel free to use it.

Disclaimer:

The manufacturer is not responsible for damages caused by improper use, incorrect installation, or modifications to the product.
Always follow vehicle manufacturer's jump-start instructions.

Contacting ANCEL

Website: www.anceltech.com
Email: support@anceltech.com