BANSHEE™

STATE OF THE ART CHARGING SYSTEMS

12V Intelligent Car & Motorcycle Smart Battery Charger

BZ04-Z1.0A-D1

Read and understand these instructions before attempting any operation of this battery charger and retain for future reference!

Danger!

When using the equipment, a few safety precautions must be observed to avoid injuries and damage. Please read the complete operating instructions and safety regulations with due care. Keep this manual in a safe place, so that the information is available at all times. If you give the equipment to any other person, hand over these operating instructions and safety regulations as well. We cannot accept any liability for damage or accidents which arise due to a failure to follow these instructions and the safety instructions.

CAUTION: Personal Safety

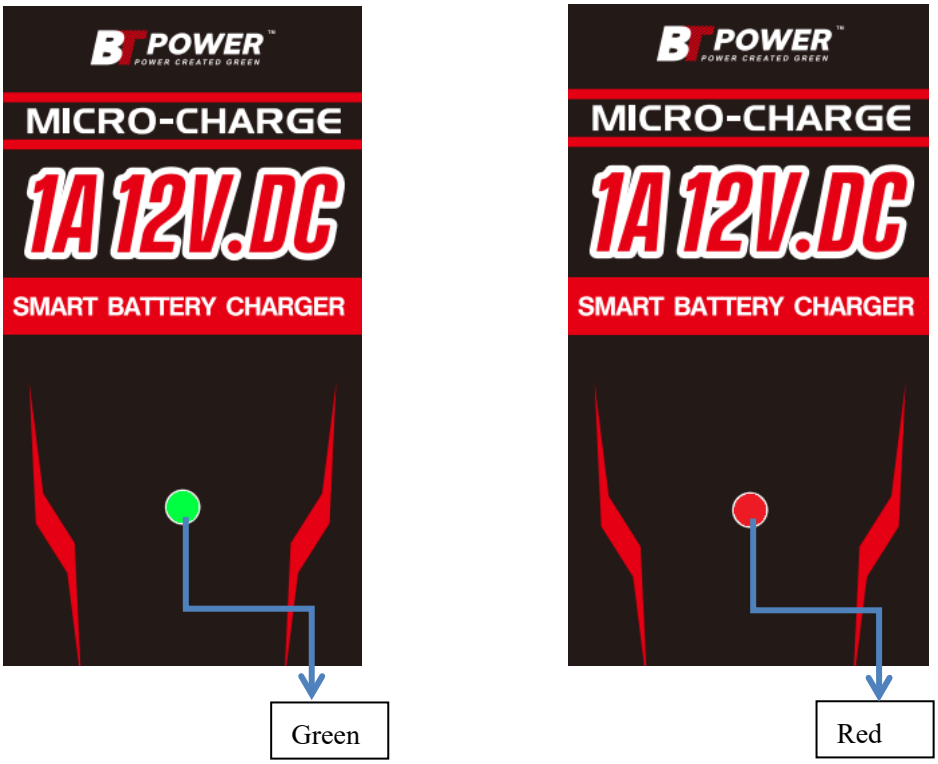
1. Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.
2. To reduce risk of damage to electric plug and cord, pull by plug rather than cord when disconnecting charger.
3. An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock.
4. Do not operate charger with damaged cord or plug-replace the cord or plug immediately Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way;take it to a qualified serviceman.
5. To reduce risk of electric shock, unplug charger from outlet before attempting any maintenance or cleaning. Turning off controls will not reduce this risk.
6. It is not intended to supply power to a low voltage electrical system other than in a starter-motor application. Do not use battery charger for charging dry-cell batteries that are commonly used with home appliances. These batteries may burst and cause injury to persons and damage to property.
7. Remove personal metal items such as rings, bracelets, necklaces, and watches when working with batteries. Batteries produce a short-circuit current high enough to weld a ring or other similar objects to metal, causing a severe burn.
8. Someone should be within range of your voice, or close enough to come to your aid when you work near batteries, Wear eye protection and clothing protection. Avoid touching your eyes while working near batteries.
9. Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing, and eyes.
10. Keep a supply of baking soda on hand in the area of the batteries. Baking soda neutralizes lead-acid battery electrolyte.
11. If battery acid contacts skin or clothing, wash immediately with soap and water. If acid enters your eyes, immediately flood them with running cold water for at least twenty minutes and get medical attention immediately.
12. DO NOT attempt to fix the unit by disassembling or modification. You can cause self injury and disassembling and modifying the unit will void your warranty.
13. Ensure that the cable does not jam or comes into contact with hot surfaces or sharp edges.
14. Connection to the mains supply must be in accordance with the national regulations for electrical installations.

WARNING: Explosion and Fire Hazard

RISK OF EXPLOSIVE GASES.

1. a) WORKING IN VICINITY OF A LEAD-ACID BATTERY IS DANGEROUS. BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL BATTERY OPERATION. FOR THIS REASON, IT IS OF UTMOST IMPORTANCE THAT YOU FOLLOW THE INSTRUCTIONS EACH TIME YOU USE THE CHARGER.
   b) To reduce risk of battery explosion, follow these instructions and those published by battery-manufacturer and manufacturer of any equipment you intend to use in vicinity of battery. Review cautionary marking on these products and on engine.
2. Never charge a frozen battery.
3. Never charge a damaged battery.
4. Never allow red and black clamps to touch each other or another common metal conductor. This could create a sparking.
5. Make sure the area around the battery and charger is well ventilated. DO NOT use this product in an enclosed space. The internal battery may vent explosive hydrogen gas, which can be ignited by sparks from electrical connections.
6. DO NOT use this product where there are flammable fumes or gases, such as in the bilge of a gasoline-powered boat, or near propane tanks.
7. Never smoke or allow a spark or flame in vicinity of the engine or batteries.
8. Be careful not to drop a metal object on the battery or allow a metal tool to simultaneously touch the positive and negative cable ends or battery terminals. It might spark or short-circuit the battery and cause an explosion.
9. If you need to remove the clip from the battery terminal, ALWAYS remove the clip from the positive terminal from the battery first. Make sure all accessories are off so you don't cause an arc.
10. The battery terminals exposed at the clamps have enough energy present to cause a spark, creating an explosion hazard, or to cause burns if a metal object contacts both terminals. NEVER allow the red and black clips to touch each other or a common metal conductor.
11. DO NOT expose this product to water, rain, snow, condensation, or spray.
12. Never allow battery acid to drip on charger when reading electrolyte specific gravity or filling battery.

II. LED Instruction:



Red and Green indicator light:

- No battery connected / detected: Blinking green fast
- Charging: Green LED blinks slowly
- Fully charged: Green LED constantly on
- Error: Red LED blinks quickly(at short circuit or reverse polarity / inversely connected)

III. Technical Specifications:

1) If the green indicator blinks slowly, the battery is being charged. If the green indicator is steady on, the battery is fully charged.
2) If the charger is short-connected or inversely connected, the red light flashes quickly.

Input voltage	Max Input Power	Output	Lead-acid battery
110-120V	20W	12V DC, 1A	4-30Ah（for charging ）； 4-120Ah （for maintain）

IV. Work Environment and Placement

1. The charger shall be put in places that are well-ventilated, dry, sunshine-free, heat-free and erosive gas-free. It shall be kept as distant as possible from storage battery when the direct current cable allows and be placed stable to avoid falling.

2. Never place the charger directly on the battery or battery on the charger which is very dangerous.

3. During charging, if the temperature of battery exceeds 40℃, current shall be reduced. If temperature exceeds 45℃, charging shall be stopped. Charging shall not be recommenced until the battery temperature reduces to safe limits.

V. Connection & Operation instruction:

Before charging,confirm that the voltage of the battery is 12V by referring to the label on the battery or from the information available rating to its application e.g. car user manual.

1. You can connect AC power first, connect positive and negative clip to battery.

2. Charge a 12V battery,connect the AC Power.Then Connect the positive (red) clamp from the battery charger to the positive(POS,P,+) post of the battery.Connect the negative (black) clamps or from the battery charger to the negative(NEG,N,-) post of the battery. The green light blinks slowly when charging.After fully-charged, the green light will lighting continuously.

3. Connect AC power first, if there is a short circuit or clamp reversal, the red light flashes quickly.