USER MANUAL & WIRING GUIDE Pro Chaser DC-DC Step Down Voltage Reducer (36V/48V to 12V, 10A 120W)

1. Product Specifications

- **Input Voltage:** 36V / 48V DC (Operating Range: 30V - 60V DC)
- **Output Voltage:** 12V DC
- **Max Output Current:** 10 Amps
- **Max Output Power:** 120 Watts
- **System Type:** 3-Wire System (Common Negative)

2. Important Safety Warnings

- **DO NOT reverse the polarity.** Connecting the positive and negative wires incorrectly will cause a short circuit and permanently damage the converter.
- Ensure the total power of the connected 12V devices does not exceed the maximum capacity of 120W (10A).
- Disconnect the main battery power before beginning installation.

3. Wiring Instructions (Please Read Carefully) This device uses a **3-wire common negative system**. The Black wire serves as the ground/negative for BOTH the input battery and the output 12V accessory.

- **RED WIRE (Input +):** Connect to the Positive (+) terminal of your 36V or 48V main battery.
- **YELLOW WIRE (Output +):** Connect to the Positive (+) wire of your 12V accessory (e.g., headlights, radio).
- **BLACK WIRE (Common Negative -):** Connect to the Negative (-) terminal of your 36V or 48V main battery. **AND** connect the Negative (-) wire of your 12V accessory to this same Black wire connection point.

4. Testing Before Final Installation To ensure correct wiring, we highly recommend testing the output with a multimeter before connecting your 12V devices:

1. Connect the Red wire to Battery (+) and the Black wire to Battery (-).
2. Set your multimeter to DC Voltage.
3. Place the Red multimeter probe on the Yellow wire (Output +) and the Black multimeter probe on the Black wire (Common Negative -).

4. The multimeter should read approximately 12V DC. If correct, proceed to connect your accessories.

5. Troubleshooting & FAQ

Q: I tested the output and it is showing 36V/48V instead of 12V. Is the unit defective? A: No, this indicates a wiring error, not a defective unit. If the Red and Yellow wires are confused, or if the Black wire is not properly grounded to the main battery negative, the converter cannot step down the voltage, resulting in a "passthrough" of the original battery voltage. Please double-check the wiring instructions in Section 3.

Q: My 12V accessory has two wires (Positive and Negative), but the converter only has one Output wire (Yellow). Where does the accessory's negative wire go? A: This is a 3-wire converter with a common ground. The Black wire on the converter is shared. You must connect your accessory's negative wire to the same grounding point or directly splice it into the line connecting the converter's Black wire to the battery's negative terminal.

Q: The converter is not outputting any power. A: 1. Check all connections to ensure they are secure. 2. Verify that the input battery has a sufficient charge (between 30V-60V). 3. Ensure the connected load does not exceed 120W (10A), which would trigger the device's internal overload protection.