

# PLT-99300

# **12V Ultra Capacitor Jump Starter**



#### Features:

- Always ready for use when you need it
- Output: 700 Peak Amps / 350 Cranking Amps
- Capacitor can fully charge in 45 seconds
- LCD intelligent display provides battery voltage and condition
- Maintenance free design no need to recharge during storage
- Use for automotive, marine, motorcycle and SUVs
- Working temperature range: -40° F to 150° F

#### Includes:

- (1) 12V DC charging cable
- (1) 5V USB charging cable

WARNING: Read all instructions before operating this product. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

# SAVE THESE INSTRUCTIONS

# IMPORTANT SAFETY INSTRUCTIONS

Working in the vicinity of a lead acid battery is dangerous. Batteries generate explosive gases during normal operation. It is important that you follow these instructions each time you use the PLT-99300.

- To reduce the risk of battery explosion, follow these instructions and those published by the battery manufacturer and the manufacturer of any equipment you intend to use in the vicinity of a battery. Review cautionary marking on these products and on the engine.
- Keep out of reach of children.
- Use only in a well-ventilated area.
- Do not disassemble the PLT-99300. Take it to a qualified service professional if service or repair is required. Incorrect assembly may result in fire or electrical shock.
- Never operate the PLT-99300 if it is damaged.
- Do not set the PLT-99300 on flammable materials, such as carpeting, upholstery, paper, cardboard, etc.
- Place the PLT-99300 as far away from the battery being jumped as the cables will permit.
- Do not expose the PLT-99300 to rain or snow.
- Never place the PLT-99300 directly above battery being jumped.
- To prevent arcing, never allow the clamps to touch together or to contact the same piece of metal.
- If someone else uses the PLT-99300, ensure they are well informed on how to use it safely, and have read and understood the operating instructions.
- The PLT-99300 is NOT designed to be installed as a replacement for a vehicle battery.
- Do not use for dry cell batteries that are commonly used with home appliances.
- Make sure your vehicle is in "park" and the emergency brake is engaged.
- Turn off ALL electronics in your vehicle (air conditioner, heat, radio, lights, chargers, etc.).
- Make sure the key is in the "OFF" position. For smart-key fobs (push-to start vehicles), make sure the vehicle is completely OFF before jump starting.

### GENERAL SAFETY GUIDE

- 1. Read vehicle owner's manual: The vehicle manufacturer may have specific precautions and instructions about jumping your vehicle of which you should be aware of.
- 2. Please wear safety glasses and gloves while jumping your vehicle.
- 3. If you are not in a well-ventilated area, please do not attempt to jump start your vehicle.
- 4. Put your vehicle in PARK and engage the emergency brake.
- 5. Turn off ALL electronics in your vehicle (air conditioner, heat, radio, lights, chargers, etc.) to ensure the best performance of your jump starter.
- 7. Ensure key is in the "OFF" position in the ignition. For smart-key fobs (push-to start vehicles), make sure the vehicle is completely "OFF" before jump starting.

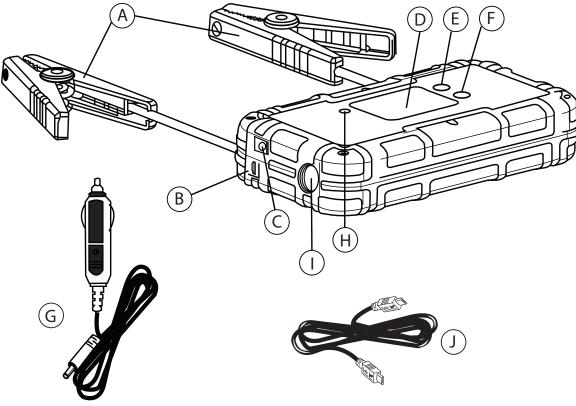
#### **TECHNICAL SPECIFICATION**

Starting current: 350A Input: DC12V 10A, DC 5V 2A Operation temperature: -40°C to 65°C (-40°F to 150°F)

CAPACITOR CHARGING TIME		
5V 2A: 20 mins	Car battery: 45 Sec	
12V 10A: 2 mins	Back-up battery: 4 mins	

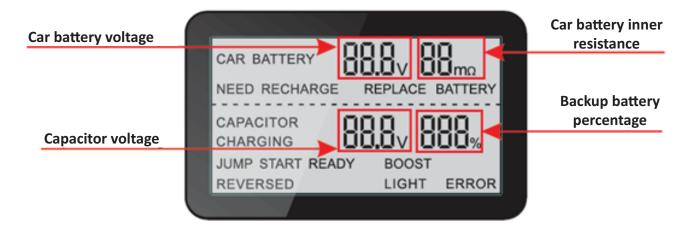
BACK-UP BATTERY CHARGING TIME	
5V 2A: 4-6 hours	12V 10A: 50mins

#### COMPONENTS AND CONTROLS



- A. Battery clamps
- B. 5V/2A Micro USB Input Port
- C. 12V 10A Input port
- D. Screen: See section "LCD DISPLAY"
- E. Main Switch: Press switch button, LCD display will light up and show message
- F. LED flashlight switch
- G. 12V DC Vehicle Power Plug
- H. Built-in backup battery (Boost function): Press and hold the button for three seconds to initiate capacitor charge. See section "Alternative Pre-charge Methods"
- I. LED flashlight: There are 4 modes of light operation in order: Normal, Strobe, SOS and Off
- J. 5V Micro USB adapter

#### LCD DISPLAY



#### **OPERATING INSTRUCTIONS**

This premium, next generation jump starter utilizes ultra-capacitor technology and allows a vehicles weak battery (provided it still has more than 5 volts available) to charge the jump starters capacitors and then jump start the vehicle.

#### STANDARD MODE

In most cases, the weak battery can fully recharge the PLT-99300. Follow these steps to pre-charge your PLT-99300 and get your car started:

- 1. For a negative-ground vehicle (as in most vehicles), connect the POSITIVE (RED) clamp to the POSITIVE (POS, P, +) battery post. Next, connect the NEGATIVE (BLACK) clamp to the vehicle chassis or engine block, away from the battery.
- 2. For a positive-ground vehicle, connect the NEGATIVE (BLACK) clamp to the NEGATIVE (NEG, N, -) battery post. Next, connect the POSITIVE (RED) clamp to the vehicle chassis or engine block away from the battery.
- 3. The PLT-99300 will turn on automatically. Indicators will show the voltage of the vehicle's battery and health status (internal resistance of vehicle's battery).

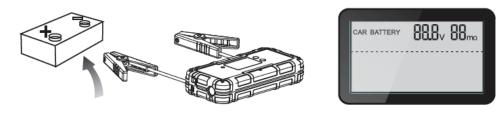


Fig.1

4. The PLT-99300 will start to recharge itself. Screen will show the capacitor's voltage during charging.

5. Once capacitor voltage reaches 15V, Screen will show "JUMP START READY", turn on the engine immediately. **Note:** Capacitors will not be charged if vehicle battery voltage detected is below 5V.

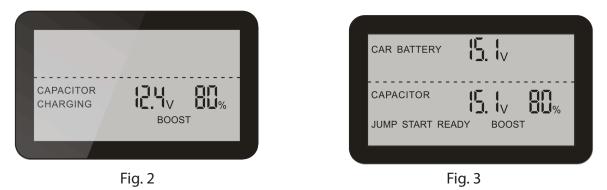
**WARNING:** Do not leave the engine running without the PLT-99300 or the battery being connected.

Failure to comply could result in damage to the vehicle ECU. The manufacturer will not accept responsibility for any damage caused by incorrect use of this product.

### ALTERNATIVE PRE-CHARGE METHODS

If your vehicle's battery is completely discharged or a bad battery, you can use one of the following alternative pre-charging methods:

BOOST Mode - Transfer the stored power from built-in back-up battery of PLT-99300. If the backup battery
has been pre-charged, you can press the <backup battery Boost> button to charge the capacitors (Fig 2). After
approximately 4 mins, when the LCD display shows "JUMP START READY" (Fig 3), turn on the engine immediately.

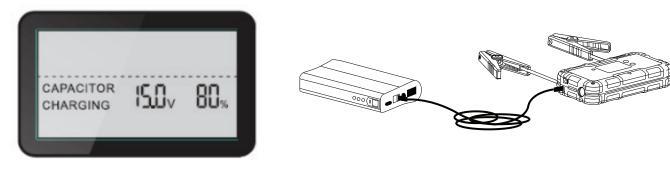


**Attention:** Always keep the built-in battery charged in case your vehicle's battery is completely discharged, or does not allow you to pre-charge the PLT-99300.

2) From a 12v power outlet - The PLT-99300 can be recharged from a donor car's 12V socket. Plug in the 12V Cigarette charging cable (PRT99300-01). Charging starts automatically. Once you have fully charged your PLT-99300 (Once screen shows "JUMP START READY"), you can continue with the connection and starting instructions in Standard Mode.

Note: Capacitors will not be charged if donor car's battery voltage detected is below 12V.

- 3) From a battery of another car Connect the PLT-99300's red (POSITIVE) output clamp to the POSITIVE post of the battery. Next, connect the black (NEGATIVE) output clamp to a heavy, unpainted metal part of the chassis or engine block, away from the battery. DO NOT connect clamp to the negative battery post, carburetor, fuel line or a sheet metal part. The PLT-99300 will start to charge itself. Once you have fully charged your PLT-99300 (Once screen shows "JUMP START READY"), disconnect the PLT-99300 by removing the output clamp from the chassis or engine block, you can continue with the connection and starting instructions in Standard Mode.
- 4) **From a USB** The PLT-99300 can be recharged from any 5V 2A USB port, using a Micro USB adapter (PRT99300-02). Recharging starts automatically. (Fig 5) After approx. 20min, once the LCD display shows capacitor voltage 15V, you can continue with the connection and starting instructions in Standard Mode.





#### VEHICLE BATTERY DIAGNOSIS

Connect Red Clamp to the positive (+) battery terminal, Black Clamp to the negative (-) battery terminal, check the battery voltage and its internal resistance to determine if the car battery needs to be charged or replaced. Fig.6

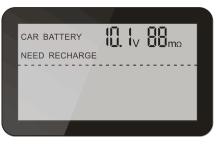


Fig. 6

#### FREQUENTLY ASKED QUESTIONS

- Q: Why does the screen still indicate "CHARGING" after the ultra-capacitor is fully charged through 12V/10A or 5V/2A ports?
- A: This means it is now charging the backup battery inside the product, and the percentage of charge will be displayed on the LCD screen.
- Q: How many jump starts can a fully recharged jump starter perform?
- A: The PLT-99300 is designed to start only once when fully recharged. It starts to recharge itself after each use which takes only about 5-10 seconds. Therefore, it can jump start many times as needed successively.
   Warning: Do not leave the unit connected to a running vehicle for more than 30 seconds.
- Q: Will transfer of residual energy to the jump starter damage the weak battery?
- A. No. The PLT-99300 draws only 0.2-0.4Ah energy from the battery. A weak car battery normally has a capacity of 10-30Ah and can recharge the jump starter many times without any side effects.
- Q: Is this jump starter safe to ECU or car's computer?
- A: The PLT-99300 uses super-capacitors instead of a traditional battery. The voltage of capacitors are restricted within safe range of all kinds of ECU, so it has no risk. Capacitors have very small capacities, about 0.2-0.4Ah. They will be fully recharged from alternator within seconds once the car has started. Disconnecting the PLT-99300 will not cause any load dump, so there is no voltage spike produced automatically.
- Q: How long can this jump starter hold a charge?
- A: The PLT-99300 will self-discharge to 0 in a couple of days. The period of charge storage, is a critical issue with traditional battery, but is less relevant for PLT-99300 technology because it can be instantly recharged from a weak battery within a few minutes.
- Q. What's the life span of this jump starter?
- A. The PLT-99300 provides more than a 100,000 jump starts before noticeable performance degradation. Ultra-capacitors can remain in good working condition for more than 10 years.
- Q. What is the effect of low temperature on this jump starter?
- A. Traditional batteries, such as lead acid or lithium-ion, deliver lower cranking current at low temperature. The ultra-capacitors in PLT-99300 keep almost the same starting current even at extreme cold weather down to -40°F.

Q. What size of engines can PLT-99300 work on?

A. Success of a jump start depends on many factors such as battery condition, temperature, age of the car and etc. Here is general guide of PLT-99300 choice for different engine size:

	Gasoline		Diesel		
Crank Amp	Warm No battery	Cold No battery	Warm No Battery	Cold Weak Battery	Cold No battery
350Amp	>6.0L	>5.0L	>3.0L	>3.0L	>1.6L

# TROUBLESHOOTING

Problem	Possible Cause	Solution
The screen shows "JUMP START READY" but I can't get my car started.		When screen shows "JUMP START READY" wait 10 seconds before engaging starter motor.
	Car engine is too big for <b>PLT-99300 to start</b>	Check "engine size chart", try next level product in this category.
No response from unit when pressing the switch button	Low voltage protection is tripped	Recharge <b>PLT-99300</b> through 12V 10A or 5V 2A input port. Always pre-charge the built-in back-up battery.

# PARTS

ITEM#	<b>ORDERING PART#</b>	PART DESCRIPTION
G	PRT99300-01	12V DC VEHICLE POWER PLUG
J	PRT99300-02	5V MICRO USB ADAPTER



#### **1 YEAR LIMITED WARRANTY**

#### THIS WARRANTY AND CONFIRMED RECEIPT(S) SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES

PURCHASED FROM:

DATE PURCHASED:

INVOICE/RECEIPT NUMBER:

Your PLT-99300 is warranted for a period of 12 months from the original purchase date. Accessories such as charger, jumper cable (clamps) and USB cable are warranted against defects for a period of 90 days.

For a period of one (1) year from your purchase date, ATD Tools Inc. will repair or replace (at its option) without charge, your ATD product if it was purchased new and the product has failed due to a defect in material or workmanship which you experienced during normal use of the product. This limited warranty is your exclusive remedy.

To access the benefits of this warranty, contact your supplier, or point of sale directly. You may be advised to return the product under warranty, freight prepaid, to your supplier for warranty determination.

If this ATD product is altered, abused, misused, modified, or undergoes service by an unauthorized technician, your warranty will be void. We are not responsible for damage to ornamental designs you place on this ATD product and such ornamentation should not cover any warnings or instructions or they may void the warranty. This warranty does not cover scratches, superficial dents, and other abrasions to the paint finish that occur under normal use. It also does not cover normal wear items such as but not limited to brushes, batteries, drill bits, drill chucks, pads or blades.

Subject to the law in your state:

(1) Your sole and exclusive remedy is repair or replacement of the defective product as described above.

(2) ATD is not liable for any incidental damages, including but not limited to, lost profits and unforeseeable consequences.
(3) The repair and replacement of this product under the express limited warranty described above is your exclusive remedy and is provided in lieu of all other warranties, express or implied. All other warranties, including implied warranties and warranties of merchantability or fitness for a particular purpose are disclaimed and, if disclaimer is prohibited, these warranties are limited to one year from your date of purchase of this product.

Some states' laws do not allow limited durations on certain implied warranties and some states' laws do not allow limitations on incidental or consequential damages. You should consult the law in your state to determine how your rights may vary.

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