

### **Original Instruction**

# **USER'S MANUAL**

## GIGASTART 12/24V with wheels Reference 31320 Start booster at supercondenser



#### **Product Specification**

PROCAP START TRUCK 12/24V DC	Article number C2 Trolley 3000
Weight, approx.	16.00 kg
Input voltage	100 -240 V
Output voltage	12V / 24V
Super capacitor	12/24V /1200F/300F
Starting Power	4000 A / 3000A
Booster cables	50 mm <sup>2</sup> , 190cm long
Short-Circuit Current 12V / 24V	19000AMP/9000AMP

Overload protection Fuse

1000A



#### **Unit Elements**

- 1 Clamps
- 2 Test button
- 3 Charge-control indicator
- 4 Charge DC Jack only for 12V
- 5 LED Alarm
- 6 Power On/Off Switch
- 7 20A Fuse
- 8 1000A Fuse
- 9 12VDC Adaptor Charger
- 10 Charge state led /Digital voltmeter
- 11 12V connection plug

#### Use as Intended

The Batteryless Procap Start Truck 12/24V intended for jump-starting the vehicles either 12V or 24V.

For damage caused by usage other than intended, the user is responsible.

If the engine does not start within three to ten seconds, stop cranking and wait at least three minute before attempting to start the vehicle again.

IMPORTANT NOTE: BEFORE FIRST USE MAKE SURE TO CHARGE THE BATTERYLESS BATTERYLESS PROCAP START TRUCK WITH THE SUPPLIED AUTOMATIC CHARGER ADOPTOR FOR AT LEAST 8 HOURS.

#### **IMPORTANT SAFETY INSTRUCTIONS**

- 1. **Always** use eye protection during operation.
- 2. **WARNING!** Use of accessories or an attachment not recommended or sold by the Batteryless Procap Start Truck's manufacturer may result in personal injury and/or damage to the Device.

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- 3. **Always** carefully handle the jumper cables and use the plugs to connect and disconnect the automatic adaptor charger. **Never** pull on the cables.
- 4. **Do not** recharge the Batteryless Procap Start Truck with a damaged plug or cord.
- 5. The Batteryless Procap Start Truck may be used in all weather conditions. However, **never** allow the Batteryless Supercap & Procap Start Truck to become heavily covered, soaked or submerged in water. **Do not** charge the Batteryless Supercap & Procap Start Truck in a wet environment. **Never** attempt to charge or boost a frozen battery.
- 6. **Never** allow the positive (red) and negative (black) clamps to contact each other or allow them to contact the same piece of metal or post. Always avoid any short circuit.
- 7. **Do not** operate the Device in an explosive environment or near sparks, flames and flammables such as gasoline etc.
- 8. **Never** smoke while operating the Device or near any vehicle battery.
- 9. **Do not** attempt to repair a damaged Batteryless Supercap & Procap Start Truck by yourself. Always have repairs performed by the manufacturer or an authorized agent. (such attempts will void warranty)
- 10. Read owner's manual entirely carefully. Please also read your vehicle's user manual to make sure there are no specific precautions you should be aware of.
- 11. Please wear safety equipment, including safety glasses and gloves. Car batteries produce explosive gases that can cause damages.
- 12. Use only in a well-ventilated area.
- 13. Do not disassemble Batteryless Supercap & Batteryless Procap Start Truck. Take it to a qualified service professional or designated service center for control. Incorrect assembly may result in fire or electrical shock.
- 14. Keep out of reach of children. Not to be used by children or persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- 15. Children should be supervised to ensure that they do not play with the Batteryless Supercap & Procap Start Truck.
- 16. Do not use or recharge the Batteryless Supercap & Procap Start Truck if damaged. Take it to a qualified person for inspection and repair.
- 17. The Batteryless Supercap & Procap Start Truck is not designed to be installed as a replacement for a vehicle battery.
- 18. Make sure jump started vehicle is in park position and the emergency brake is engaged.
- 19. Do not turn on any electronics before jump starting and make sure the ignition key is in the OFF position.
- 20. Wear eye glassed and protective clothing when working near lead-acid batteries.
- 21. Never smoke or allow a spark or flame in the vicinity of the battery or engine.

IMPORTANT: It is totally maintenance free! Even though we strongly recommend that when the Batteryless Supercap & Procap Start Truck not in use, recharge it at a minimum of every 90 days with the supplied automatic charger adaptor. However, when not in use it is strongly recommended to always keep it connected to the supplied automatic charger adaptor always ready to be used anytime!

<u>WARNING:</u> Working in the vicinity of a lead acid battery is dangerous. Batteries generate explosive gases during normal battery operation. Misuse or not properly following the operator's instructions is very dangerous and may result in an explosion, personal injury and/or severe damage to a vehicle or the Device. Read the operator's



## instructions thoroughly and take these precautions when operating the Batteryless Supercap & Procap Start Truck:

- **Pay attention** to any potential moving parts in a vehicle engine compartment. **Always** keep the Batteryless Supercap & Procap Start Truck and yourself clear of any potential moving parts and position the device in a stable location while starting a vehicle.
- After starting a vehicle, **DO NOT** leave the Batteryless Supercap & Procap Start Truck connected for more than 2 minutes with runner engine.
- **Danger! Risk of explosion!** Always disconnect the clamps one at a time starting with the negative and then the positive. Then switch the 12V OFF 24V switch to "Off" position.
- Pay attention that the terminal voltage of the Batteryless Supercap & Procap Start
  Truck corresponds with the data of the vehicle battery or batteries. Use
  Batteryless Supercap & Procap Start Truck with proper cranking amperage and
  capacity for the application. Non-adherence to this may result in damage to
  vehicle electronics, damage to the unit and may increase the risk of a dangerous
  explosion.
- Have your Batteryless Supercap & Procap Start Truck safety inspected by an authorized agent of the manufacturer. (every 2 years for 12V/24V & 24V models)

#### • HOW TO CHARGE IT

#### **Recharge by Supplied Charger Adaptor**

- 1. To check the power level of the Batteryless Supercap & Procap Start Truck, switch the 12V OFF 24V switch to the 12V OR 24V position and simply press the yellow test button and hold for 2-5 seconds. The voltage level will be displayed with led light or with digits. Make sure the unit is fully charged before using it 5 LEDs lights must be 0N, or voltage must be higher than 13.5V on the 12V position and higher than 27V on the 24V position. If the voltage level lit until the yellow led light, or the digital voltmeter shows below than 13.5V on 12V position and 26V for 24V position, the Device should be recharged before use.
- 1. Make sure the clamps are secure in their respective designated holders before charging.
- 2. Simply plug the supplied charger adaptor into the AC power outlet and then into the DC JACK socket on the Batteryless Supercap & Procap Start Truck. Switch the 12V OFF 24V main switch to the "12V" position. The charger included with your device has charge indication LEDs, it is fully automatic and may be left on and connected when the Batteryless Supercap & Procap Start Truck is fully charged.
  - **Note:** Depending on which charger is being used, when it is fully charged the led light of automatic charger adaptor turns into green or Blinking.
- 3. The charger adaptor and Batteryles Supercap & Procap Start Truck Booster must be placed in a well-ventilated area during use.
- 4. Make sure the place the charger adaptor on a dry, non-flammable area.

If your Batteryless Supercap & Procap Start Truck is equipped with an ON/OFF switch or 12/24V Cam switch, please make sure it is on the position OFF, or switch the connector handle on the correct voltage.

If your unit is equipped with a safety fuse, please make sure the fuse is not damaged; otherwise the current will not go through.



Make sure to connect a 12V model to a 12V battery or vehicle, and 24V model to a 24V charging method.

Max input voltage for recharging: 12V models: 14.8V & for the model 12/24V Models: 27.5V

### CHARGING THE BATTERYLESS SUPERCAP & PROCAP START TRUCK THROUGH THE CLAMPS WITH A RUNNING VECHILE:

**IMPORTANT:** Charging with this method is **not** automatic and requires the operator to manually observe the charging of the Batteryless Supercap & Procap Start Truck and the power level status. **Always** make sure the vehicle is running and **never** leave the Batteryless Supercap & Procap Start Truck Booster connected for long time and charging unattended.

- 1. Position the Device in a well-ventilated, stable location and **never** place it where it could interfere with someone operating or driving the vehicle.
- 2. Make sure the clamps are securely and correctly connected.
- 3. **Make sure the vehicle is running** and switch the On/Off switch to the "ON" position. OR Switch the CAM switch either 12V OR 24V position based on Vehicle voltage!
- 4. **Do not** leave the Device connected and charging continuously for more than 2 minutes with running engine.
- 5. Allow Device to rest 1 minute before pressing the test button to check the power level status.
- 6. When finished charging, be sure to switch the On/Off switch to "OFF" position. Note: Charging with this method requires very short time than charging with the automatic charger adaptor.

## CHARGING THE BATTERYLESS SUPERCAP & PROCAP START TRUCK THROUGH A FULLY CHARGED EXTERNAL BATTERY:

- 7. Recharge by external battery, connect the two clamps of the batteryless booster on almost any charged battery of the same voltage and turn the Main ON/OFF Switch to the ON Position. OR Switch the CAM switch either 12V OR 24V position based on Vehicle voltage!
- 1. If your batteryless start booster is equipped with an ON/OFF switch or 12/24V Cam switch, please make sure it is on the position ON, or switch the connector on the correct voltage after connecting the clamps correctly. **This charging method is applied to only recharging by external battery and by running vehicle engine.**

#### HOW TO USE IT:

#### **IMPORTANT:**

- On the model 12V make sure to have the main On/Off switch turn into the "Off" position until the clamps are correctly connected to the vehicle!
- On the model 12/24V make sure to have the 12V/Off/24V CAM switch in the "Off" position until the clamps are correctly connected to the vehicle. Then turn the Cam Switch to the corresponding voltage of the vehicles being to be jump started!
- If you can, pre-charge your unit beforehand.



- Always make sure you use a 12V unit for a 12V vehicle, and vice versa.
  - 1. Begin with the vehicle ignition in the "Off" position.
  - 2. Turn off ALL your electronics in your vehicle (AC, Radio, Lights, etc.)
  - 3. If your unit is equipped with an ON/OFF switch or 12/24V cam switch or connector, make sure it is on the position OFF, or disconnected.
  - 4. Connect first the positive clamp (red) to the positive terminal of the battery.
  - 5. Then connect the negative (black) clamp to the negative terminal of the battery, or to the block of the engine or to the frame of the vehicle (ground).
  - 6. Make sure Device is stable and the cables are not in the path of moving belts, fans etc.
  - 7. If your unit is equipped with a reverse polarity alarm, make sure it is not making a loud noise and blinking before turning the jump starter on the position ON.

## 8. Once the clamps are positioned correctly, switch the On/Off switch to the "On" position. Or change the Cam Switch to 12V or 24V position

- 9. Stay clear of the Device and the vehicle battery. Attempt to start the vehicle.
- 10. This is not intended for use by persons including or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the device and be a person responsible for their safety.
- 11. Children should be supervised to ensure they do not play with the unit.

The Batteryless Supercap & Procap Start Truck will get discharged in a few days; Pre-charge it before use.

The Batteryless Supercap Start Booster & Procap Start Truck relies on the instant recharging of Super capacitors rather than stored electric energy like batteries. Therefore, it does not need regular recharge and can be stored for years. It's totally maintenance free!

<u>IMPORTANT:</u> Should the vehicle refuse to start within 3-10 seconds, have the Batteryless Supercap & Procap Start Truck cool down a minimum of 3 minutes before you attempt to start the vehicle again.

WARNING! Overuse may increase the risk of an explosion, personal injury or severe damage to the unit. Start attempts always need to be very short.

- 12. Once the vehicle is started, **DO NOT** leave the Start Booster connected for more than 2 minutes. Always disconnect the clamps one at a time starting with the negative and then the positive. Then switch the On/Off switch to "Off".
- 13. Store both clamps in their respective designated holders.

#### • ADDITIONAL NOTES ON SAFETY:

This product is to be used with **12V or 24V vehicles only**. Misuse may cause personal injury or serious damage to a vehicle. **It is very important to use a Batteryless Supercap & Procap Start Truck that has the proper voltage, cranking amperage and capacity for the application.** 

To avoid any short-circuit of current and to protect the clamps, positive (red) and negative (black), the clamps must always be stored in the specially designed holders when not in use. Use the cable holders to store the cable neatly on the unit.

#### • ADDITIONAL SAFETY FEATURES:



#### **Buzzer Alarm**



If the buzzer makes noise and flashes light, this means that there is an inversion of polarity, short circuit or cross connection. If this happens, make sure you have connected the clamps correctly to the vehicle.

#### **Circuit Breaker 20A**



This is another security measure to protect the booster capacitor from any short circuit and overheating during recharging through the 12V cigar lighter power socket. If short circuit happens, the red button will move outward and should be reset manually by pushing the red button back in.

#### **Heavy Duty Fuse:**



This is another security measure to protect the booster capacitors and car battery from any short circuit and reverse connection during jump starting through the two clamps. If short circuit happens or wrong polarity connection occurs, the fuse will be blown up and cut the power. The Fuse could be replaced very easily. Open the transparent cover and unscrewing the two auto-block nuts and replace the fuse.

#### Technical data

**C-2 Trolley** Voltage 12V / 24V

19000Amp /9000Amp Boost rate Peak current

Total internal Capacitor 3000F

Cranking rate 4000Amp /3000Amp

Net Weight (kg) 16,0kg Charger input 100-240V Charging capacity 12V 3.0Amp

Automatic charger Yes

Clamps Brass clamps Yes **Fuse** 

On/Off switch and buzzer Yes

Life Span One millions cycles Cable size  $50 \text{mm}^2$ 

190cm Cable length Voltage spike protection Yes

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#### **WARRANTY**

The warranty on the Batteryless Supercap & Procap Start Truck depends on the conditions granted by your retailer.

Unit is covered by the manufacturer for a period of 2 years on manufacturing defects on all the parts and labor. Does not cover abuses, misuse, normal wear & tear and transport.

Manufacturer should not be held liable for incidental and consequential damages under any circumstances. Manufacturer liability should never exceed the purchase price of this unit. For more information, please contact us or your distributor directly.

For security reason, every three year bring it to the manufacturer or its designated service center for inspection.





#### **DISPOSAL AND RECYCLING**

Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local recycling center and place into the appropriate recycling bin.

The Batteryless Supercapacitor Start Booster contains Supercapacitors with RoHS compliance. Never dispose of electrical equipment or Capacitor in with your domestic waste. If your supplier offers a disposal facility, please use it or alternatively use your local recycling center and dispose in a correct manner. This will allow recycling of raw materials and help protect the environment.

#### **TROUBLESHOOTING**

**NOTE:** A defective or damaged vehicle battery may refuse to accept current from the Batteryless Supercap & Procap Start Truck. This may be the reason that a vehicle refuses to start. Consider this while troubleshooting.

#### PROBLEM:

When the test button is pressed on the Batteryless Supercap & Procap Start Truck, the voltage is below 12.6V, the charger has been plugged in for over 12 hours and there is no change in status of the voltage reading on the digital voltmeter.

#### **SOLUTION & ACTION:**

Make sure the Batteryless Supercap Start Booster / Batteryless Procap Start Truck On/Off switch is "On". OR select correct voltage! Check if the charger is charging. The charger should be warm and it also has charge status LEDs.

#### PROBLEM:

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The charger works well but the Batteryless Supercap & Procap Start Truck is not charging. **SOLUTION & ACTION:** 

There is possibility of a defective supercapacitor or faulty circuit breaker. Test the circuit breaker. Try using a device (for example a 12V light) through the cigar lighter socket. Should it work, the circuit breaker is OK and the Supercapacitor is likely the problem. If there is a suspected problem with the supercapacitor, have the Batteryless Supercap & Procap Start Truck inspected by an authorized agent of the manufacturer.

#### PROBLEM:

The Batteryless Supercap & Procap Start Truck is fully charged but will not start an engine.

#### **SOLUTION & ACTION:**

It is possible there is a defective vehicle battery.

Check the clamp connections and make sure vehicle terminals are clean and free of any corrosion. Make sure the connections with the red voltage selection connector, cables and clamps are correct and not damaged.

#### PROBLEM:

I have charged the Batteryless Supercap & Procap Start Truck. When testing the unit, no LEDs light.

#### **SOLUTION & ACTION:**

Make sure the voltage selection connector is plugged or turned into 12V before testing the unit. It is possible there is a deeply discharged or damaged Supercapacitor inside the unit. Possible damaged LED circuit. Have an authorized agent of the manufacturer inspect the unit.

#### **PROBLEM:**

When trying to use an accessory through the 12V cigar lighter socket on the Batteryless Supercap & Procap Start Truck, I hear a clicking sound from the unit.

#### **SOLUTION & ACTION:**

The accessory may be drawing too many amps or the accessory may have a problem such as a short circuit. Make sure the accessory you are attempting to use does not draw too much current **or**, if it may be damaged or defective, **do not** use the accessory. Have any potentially damaged or defective accessory inspected by a certified electronic technician for the accessory manufacturer.

#### FREQUENTLY ASKED QUESTIONS AND ANSWERS

#### **QUESTION:**

Can the Supercapacitor of the Batteryless Supercap & Procap Start Truck be replaced? **ANSWER:** 

Yes. Contact your nearest distributor for replacement of the Capacitors.



#### **QUESTION:**

I have a regular 10amp battery charger. Can I use it to charge a Batteryless Supercap & Procap Start Truck?

#### **ANSWER:**

Yes, but strongly recommended to use the originally supplied fully automatic charger.

#### **QUESTION:**

How many jump starts can a fully charged Batteryless Supercap & Procap Start Truck do before needing to be recharged?

#### **ANSWER:**

1 to 100, depending on: temperature, general condition of the vehicle, engine type and size.

#### **QUESTION:**

What is the ideal temperature of the Batteryless Supercap & Procap Start Truck?

#### **ANSWER:**

Room temperature would the best. The Batteryless Supercap & Procap Start Truck could be also operated at wide temperature range below- $40C^{\circ} + 45C^{\circ}$ ; however, in cold temperature the power will be a bit less. **Never** attempt to charge or boost a frozen battery. Intense heat will activate self-discharge of the battery.

If you have difficulty understanding the Original User's Manual or if you have a problem with your Batteryless Supercap & Procap Start Truck, contact your distributor for advice. Do not attempt to open or repair the unit by yourself. To make sure your device is in good operating order, Have your Batteryless Supercap & Procap Start Truck safety inspected by an authorized agent of the manufacturer. (Every 2 years for 12V/24V & 24V models and every 3 years for 12V models.)

The manufacturer shall have no liability whatsoever at any time for any personal injury or property damage or for any special, indirect or consequential damages at any time for any kind howsoever arising.