

tronix

PowerCore
ONLINE UPS



User's Guide

www.innovatronix.com

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Important Safety Instructions

SAVE THIS USER'S GUIDE. Contents of this User's Guide should be followed during operation and maintenance of Tronix PowerCore.

General Safety

- ❖ Do NOT expose to dust, moisture, liquids, rain or snow.
- ❖ Do NOT block ventilation openings; Overheating may occur.
- ❖ Do NOT place in a compartment with zero clearance.

Electrical Safety

- ❖ Always connect Tronix PowerCore to a grounded outlet. The socket outlet to which Tronix PowerCore is connected must be in close proximity and must be easily accessed.
- ❖ Computer units and other supported equipment must be properly connected to Tronix PowerCore.
- ❖ Always turn OFF and unplug Tronix PowerCore before doing any maintenance.

Battery Safety



Warning: Contains potentially hazardous voltages

Do NOT make any changes or modifications to PowerCore unless otherwise specified. Except the batteries, Tronix PowerCore has no serviceable parts.

- ❖ CAUTION: Do NOT place the batteries near open flames or heat. The batteries may explode.
- ❖ CAUTION: Be careful on checking the batteries during maintenance. Use of gloves is recommended. The batteries contain chemicals that are harmful to the skin and eyes. The batteries can also emit dangerous or explosive gases.
- ❖ CAUTION: To avoid injury due to electrical hazard, remove metal accessories such as wristwatches and jewelries when replacing batteries. Use properly insulated tools and handles.
- ❖ CAUTION: Tronix PowerCore uses two 12V_{DC}, 100Ah Deep Cycle Lead-Acid batteries, replace batteries with the same type as originally installed in Tronix PowerCore.
- ❖ CAUTION: Observe proper polarity when connecting the batteries. Incorrect polarity may cause electrical hazards or damage to Tronix PowerCore.

Dispose replaced batteries properly. Deliver the battery to its manufacturer for recycling.

IMPORTANT: Innovatronix Inc. does NOT recommend the Tronix PowerCore for use in life support equipment, where malfunction of the product will significantly degrade effectiveness of such equipment.

Examples of life support equipment are, but NOT limited to, the following: pacemakers, blood pumps, ventilators and dialysis systems.

Getting Started

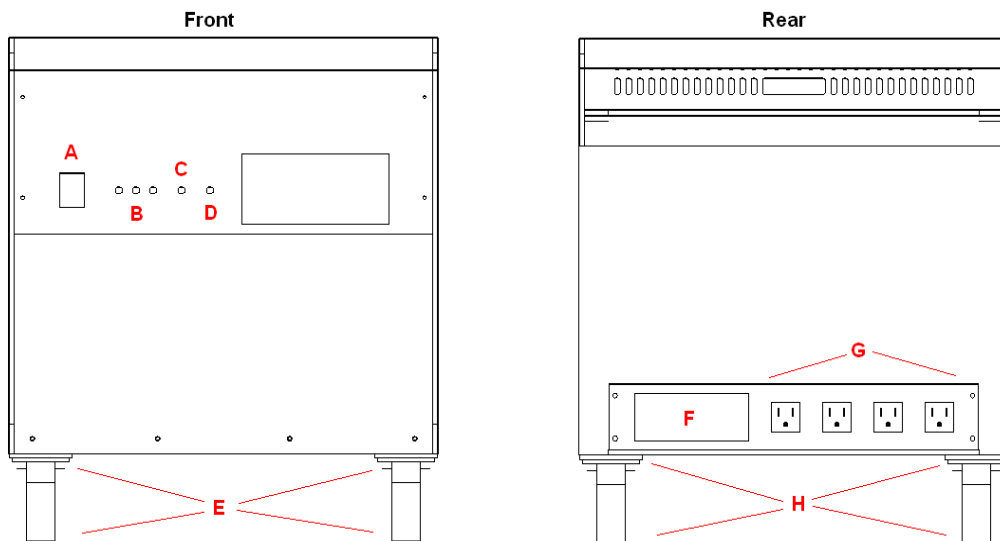
Shipping Materials

Please check if the shipped package contains the following:

- 1.1 Tronix PowerCore unit
- 2.2 100Ah Deep Cycle Lead Acid Batteries (Already installed)
3. User's Guide (this document)

Contact Tronix Customer Service in case any item is missing in the package (see *Contact Information*).

Parts Location



- A. Power Switch
- B. Battery Level Indicators (**Green** -Hi, **Yellow** -Mid, **Red** -Low)
- C. Overload Indicator (**Red** LED)
- D. Charging Indicator (**Red/Green** LED)
- E. Front wheels
- F. AC cord
- G. Output Sockets
- H. Rear wheels

Installation

1. Make sure that Tronix PowerCore is switched OFF.
2. Always place Tronix PowerCore in dry and well-ventilated area.
3. Plug the power cord to a 180V to 240V AC mains supply. The unit will automatically be in charging mode. The Charging LED should lit.

Operation

1. Make sure that Tronix PowerCore is charged as instructed in *Installation*.
2. Set up the load equipment.
3. Connect the plug of the load unit being used to one of Tronix PowerCore's sockets.
4. Turn on Tronix PowerCore by switching the power switch to **on** position. The Battery Level Indicators (**green Hi**, **yellow Med** and **red Low**) will indicate "Hi" at this point since the AC input power is available.
5. Test the backup feature by unplugging the Tronix PowerCore to the AC wall outlet. The AC output should remain and a beep every 5 minutes will be heard from the unit indicating that the UPS is now operating in backup battery mode.
6. The unit is rated at 350W. When overload occurs, overload indicator will light up. If this happens, reduce the load of the Tronix PowerCore.

Below is a table of Tronix PowerCore's status and its corresponding indication:

| Status | Indication |
|-------------------------|---|
| Charging | <i>Charging</i> LED indicator is RED |
| Charging - Battery Full | <i>Charging</i> LED indicator is GREEN |
| Battery Full | Green Hi LED indicator is ON |
| Battery at Half Power | Yellow Med LED indicator is ON |
| Battery Low | Red Low LED indicator is ON |

Tronix PowerCore's battery will be discharged if any of the following occurs:

- ❖ Tronix PowerCore is switched ON at no load. Tronix PowerCore's battery will be discharged after few days at full charge.
- ❖ Tronix PowerCore is switched OFF at no load. Tronix Power Core's battery will be discharged after few months. Thus, when not in use, it is recommended that Tronix PowerCore should be plugged in to a 180V to 265V AC mains supply from time to time.

Tip: You can leave Tronix PowerCore plugged in even after it is fully charged. Tronix PowerCore uses trickle charging. If the cord is still plugged after the battery reached full charge, the battery will not be damaged in any way. Trickle charging also maintains the battery's optimum life span.

Maintenance

- ❖ For optimum performance, keep the battery fully charged. A lit **green Hi** LED indicates a fully charged battery when Tronix PowerCore is being used. On the other hand, a lit **red Low** LED indicates a drained battery.
- ❖ Switch OFF the unit when not in use.
- ❖ Use a dry cloth when cleaning the unit. Do not use any liquid or detergents.

Battery Replacement



WARNING:

Risk of electric shock. Proceed with extreme caution.

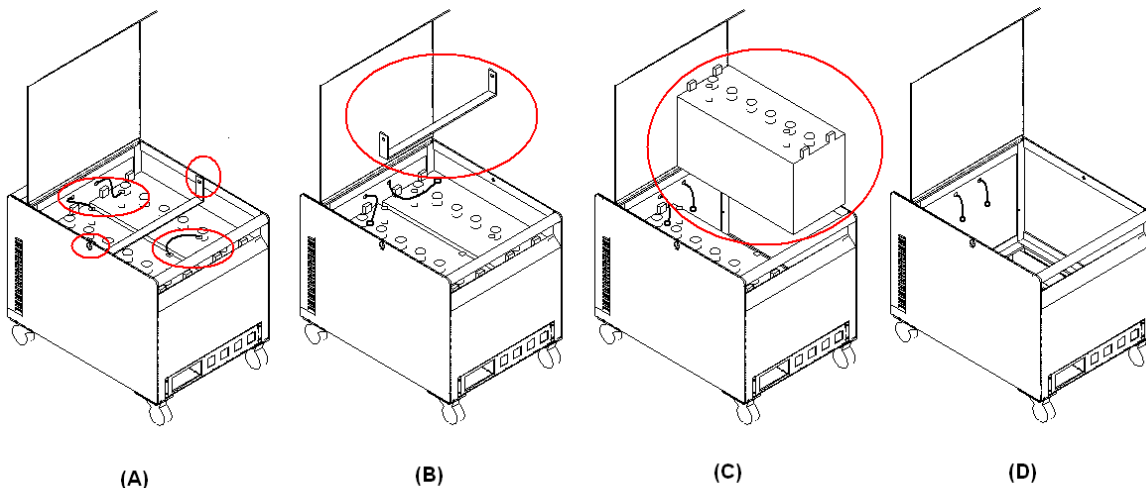
Before replacing batteries, disconnect all cords and wait 30 minutes.

Remove any metal objects such as wristwatches and jewelry.

Use properly insulated tools and handles.

Strictly follow the instructions stated to avoid possible damage to the unit and injury.

1. Make sure that Tronix PowerCore is turned OFF.
2. Open the top cover.



3. Remove the screws of the battery bracket.
4. Using pliers or screwdriver, remove the wires on the battery terminals. Be careful not to short circuit the terminals of the batteries.
5. Remove/replace the batteries.
6. Reconnect the wires. Be sure to tighten all the nuts of battery terminals to assure good contact. Loose connection will cause heating of terminals.

ATTENTION: Remember to take note of the polarity of the wires and not interchange them. Otherwise, the unit will be damaged. Black wire is for the negative(-) terminal and red wire is for the positive (+) terminal. Take note also of the original orientation of the batteries. The positive terminal of one battery is aligned with the negative terminal of the other battery for easier and simpler wiring connection.

7. Close the Tronix PowerCore cover. Fix it with the latch lock.

Dispose replaced batteries properly. Deliver the battery to its manufacturer for recycling.

Troubleshooting

Refer to the table below to address minor problems regarding installation and operation of Tronix PowerCore. For problems that can not be solved using the table, contact Tronix Customer Service.

| Problem | Possible Cause | Solution |
|-----------------------|---|---|
| Output voltage drops | Overload | Reduce load |
| Unit Beeps | Not Plugged to Supply | Check Tronix PowerCore connection to AC supply |
| Battery draining fast | Battery not fully charged Battery nearing end of its useful life | Charge battery for 8 to 9 hours Battery performance decreases with time. Also, batteries age prematurely when placed in places with high temperatures. Replace battery. See <i>Battery Replacement</i> |

Technical Specifications

| Feature | Specification |
|-------------------|--|
| UPS type | Online Double Conversion |
| Transfer time | AC to Battery = 0mS |
| Output | |
| Power Capacity | 500VA/ 350W max. |
| Voltage | 230Vac |
| Frequency | 60 Hz |
| Current | 1.52A |
| Waveform | Pure Sine Wave |
| Socket | 3 prong (x4) |
| Input | |
| AC Input | |
| Voltage | 230V |
| Frequency | 60Hz |
| Current | - Fully loaded, not charging batteries (1.8Arms) - Charging batteries only, unloaded (1.7Arms) - Fully loaded + Charging fully drained batteries (3.5Arms) |
| Indicators | |
| Visual | Green , Yellow and Red LEDs for battery status Red/Green LED for charging status Red LED for overloaded status |
| Audible alarms | Buzzer alarm every 5 minutes when in battery mode (no AC) |

| | |
|-------------------|--|
| | Buzzer alarm every 3-4 seconds when battery is critically low (please see note on battery specs.) |
| Battery | |
| Type | Deep Cycle, Lead-Acid (x2) |
| Voltage | 24V |
| Capacity | 100Ah |
| Charging Time | 8 – 9 hrs. (when the battery is fully drained) |
| Estimated Runtime | 24hrs with single desktop PC, normal use 12hrs at 150W continuous load 6hrs at 300W continuous load |
| Note: | When battery is critically low, buzzer alarms every 3-4 seconds. This goes on for around 5 minutes and will automatically shutdown and disables its AC output. |
| Physical | |
| Dimensions | 500mm x 380mm x 430mm (L x W x H) |
| Chassis | Metal, Black |
| Wheels | Swivel type, rubber with ball bearings |
| Net Weight | 86kg. |

Service and Warranty

The Tronix PowerCore is covered by a one-year warranty starting from the date of purchase. From that date, the product should be free of any defect in material and workmanship and it will function in accordance to its stated performance.

Within this period, Innovatronix Inc. will repair or replace defective parts. This warranty only covers failures due to manufacturing defects and workmanship. Hence, breakdown of Tronix PowerCore due to gross abuse and normal wear and tear is not covered in this warranty.

There are no warranties by use except as stated therein. For unsafe and/or faulty repairs, Innovatronix Inc. and/or sellers shall not be liable by such cases. Any alternation made to this product by unauthorized service technicians are the sole responsibility of the owner. Maximum liability for any breach of this agreement or other claim to the use of this product shall not exceed the purchase price of the product by the customer.

Warranty registration is not required. Warranty is applicable if and only if the product is used under normal conditions and for its intended purpose.

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