



tronix

EXPLORER mini

User's Guide



Foreword

"Shoot in more locations than one"
TRONIX EXPLORER by Innovatronix

Congratulations on your purchase of the Tronix Explorer Mini!

The Tronix Explorer Mini, rated at 400 Watts continuous and at 1200-Watts peak power, is designed to provide power to most flash and power pack units. It makes your studio lights work on location or when power is not available - with faster recycling time, more power, better performance and a much lighter set up compared to previous Tronix Explorer models.

- **Power and Reliability**
400 W continuous, 1200Ws peak power inverter
Provides a clean sine wave from a 12V source
Efficient circuit design that generates hundreds of pops for a 500ws lighting set up
- **Portability and Flexibility**
A very light yet powerful battery pack for about 5 kilos
Compatible to a wide range of bi-voltage, digital and analog flash units
Auto-volt/Global charging feature (100V-240VAC)
Comes with Tronix Explorer Mini Carrying Case
It can also be used for powering battery chargers, laptops, printers, etc.
- **Safe and Easy to Use**
Plug and play
Battery power and charging indicators

Service and Warranty

The Tronix Explorer Mini 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 the product due to gross abuse, use with non-recommended equipment or devices 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.

IMPORTANT!

Limited Warranty on SLA (Sealed-Lead) Batteries

Only items with manufacturing defects should be returned for repair, replacement or refund. If the product returned was found opened, altered or modified in any way, the product warranty is voided.

SLA battery set is not included in the warranty. Battery performance depends on charge discharge cycle under the customer's use. In addition, SLA batteries must be properly maintained by keeping it charged or charging every after usage. Otherwise, if the battery gets dried up, or diminished, hence the product warranty on battery is voided.

Product returns and/or refund policies may differ on every vendor. Contact your vendor for their customer satisfaction guarantee and warranty programs.

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Important Safety Instructions

Save this User's Guide. Contents of this user's guide should be followed during installation, operation and maintenance of Explorer Mini.

General Safety

- Do NOT expose the Tronix Explorer Mini to dust, moisture, liquids, rain or snow.
- Do NOT block ventilation openings of the Tronix Explorer Mini; Overheating may occur.
- Do NOT place the Tronix Explorer Mini in a compartment with zero clearance.
- Not recommended attachments, when used with Tronix Explorer Mini, may result in risk of fire, electrical hazard or injury.
- Periodically observe the status of the LED indicators to make sure that Tronix Explorer Mini works as intended.

Electrical Safety

- Always connect Tronix Explorer Mini to a grounded outlet. The socket outlet to which the product is connected must be in close proximity and must be easily accessed.
- Flash units and other supported equipment must be properly connected to Tronix Explorer Mini. Secure working connection and socket from outlet to the inverter.
- Always turn OFF and unplug Tronix Explorer Mini before doing any maintenance.
- Tronix Explorer Mini incorporates multiple power sources. Connect only ONE of these sources at a time. Though not posing any danger, simultaneous connection of any of these sources is NOT recommended. Disconnect ALL power cords to completely remove power from the unit.

Battery Safety

Warning!

Contains potentially hazardous voltages. Do NOT make any changes or modifications to Tronix Explorer Mini unless otherwise specified. Except for the batteries, Tronix Explorer Mini has no serviceable parts.

- **CAUTION:** Do NOT place the battery near open flame or heat. Explosion may occur.
- **CAUTION:** Do NOT open the battery. It contains chemicals that are harmful to the skin and eyes. The battery may also emit dangerous and explosive gas.
- **CAUTION:** To avoid injury due to electrical hazard, remove metal accessories such as wristwatch and jewelry when replacing battery. Use properly insulated tools and handles.
- **CAUTION:** Tronix Explorer Mini uses one (1) 12 Vdc/ 9 Ah Sealed Lead-Acid battery pack. Replace with the same type as originally installed in Tronix Explorer Mini.
- **CAUTION:** Observe proper polarity when connecting the battery. Incorrect polarity will cause electrical hazard or damage to Tronix Explorer Mini.

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

Important!

Innovatronix Inc. does not recommend Explorer Mini 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

What's in the box?*

- 1 x Tronix Explorer Mini Main Inverter unit
- 1 x Power Cord
- 1 x Universal Adapter (only for 115 – 60 models)
- 1 x Car Battery Charger
- 1 x Carrying Case
- 1x Tronix Explorer Mini User's Manual

*Contact Tronix customer care service (or seller) if package is deemed incomplete.

Installation

Always place the Tronix Explorer Mini in an environment there is no excess of heat, dust and moisture.

1. Make sure that the Tronix Explorer Mini Inverter is switched OFF.
2. Connect the charger plug of battery charger unit to the charging port (14Vdc) located on the front top panel of the Tronix Explorer Mini Inverter Unit. Make sure that connector is securely plugged in.
3. Plug the power cord to the 100-240 Vac socket of the battery charger unit and plug the power cord to the 100-240 Vac convenience socket or main supply.
4. The red LED (Power indicator) should be ON. When the battery is fully charged, the red LED and the green LED are both turned ON.

If Tronix Explorer Mini is being charged the first time, charge the unit for 12 to 15 hours. This step ensures optimum battery performance. Succeeding charges would only take 4 to 6 hours.

NOTE: The socket outlet to which Tronix Explorer Mini is connected must be in close proximity and must be easily accessed.

Operation

1. Make sure that Tronix Explorer Mini is charged as instructed in Installation. Set up the necessary lighting equipment.
2. Connect the plug of the flash unit being used to one of the Tronix Explorer Mini's sockets.

Note: The connections between the flash units and Explorer mini must be in close proximity and must be easily accessed.

3. Turn on Tronix Explorer Mini by switching the power switch to “I” position. There are two (2) battery level indicators (Green LED for Battery Full and Red LED for Battery Low).
4. The Tronix Explorer Mini is now supplying power to the flash units. Test the flash units. If desired lighting requirements are set, proceed with the photo shoot.

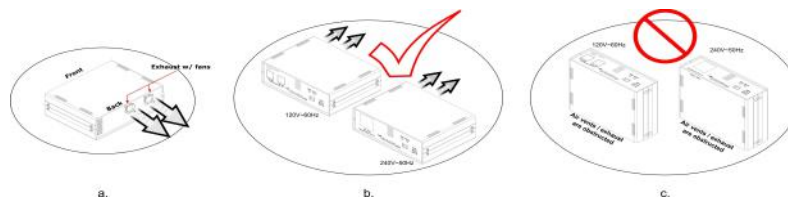
NOTE: Using modeling lamps in the flash units will prolong recycling charging time and will easily discharge the battery. Therefore, it is advised not to use modeling lights when using the Tronix Explorer Mini as a power source.

5. Observe proper positioning of Tronix Explorer Mini, air vents should not be obstructed to avoid overheating.

Below is a table of Tronix Explorer Mini LEDs' status and its corresponding indication:

Status	Indication	Voltage Output
Battery Full	Green LED indicator stays lit	Yes
Battery Low (Warning)	Red LED indicator is blinking, with two times beeping sound.	Yes
Battery Low (Shutdown)	Red LED indicator is blinking with three times beeping sound.	No
Overload Condition	Green and Red LED is lit off, with beeping sound.	No
Thermal Shutdown	Green LED is blinking and Red LED is off, with pulsating beep	No

Important: Make sure that the air vents (a) at the back of the unit are not obstructed. You can operate the unit while inside the bag, given that the unit is as demonstrated in figure (b), it may also be in a different position, as long as the vents are unobstructed. Positioning the unit as demonstrated in figure (c) (upright) may cause the Mini to overheat.



Charging

- Make sure that the Tronix Explorer Mini is switched OFF.
- See Installation procedures above.

REMINDER: DO NOT STORE THE UNIT FOR MORE THAN A MONTH WITHOUT CHARGING. CHARGE IT AT LEAST ONCE A MONTH FOR OPTIMUM BATTERY PERFORMANCE.

When the unit is accidentally discharged in full (unit was left-on for a long time even after low battery shut down), slight abnormality may be observed when trying to recharge the unit. When charged, unit may falsely show that battery is full. Just repeatedly plug and unplug the unit every 30 minutes until battery recovers and the indicator starts to blink.

Charging Guide

Status	Indication
Not Connected	Red LED is on
Charging	Red LED is on, Green LED is blinking
Battery Full	Red LED is on, and Green LED is on

Maintenance

- For optimum performance, keep the battery fully charged. A lit Green charging LED indicates a fully charged battery. On the other hand, when the inverter gives three (3) beeps prior to shutdown, the batteries are discharged.
- Turn off the unit when not in use. Leaving Tronix Explorer Mini on when unused will severely drain the battery.
- Use a dry cloth when cleaning the unit. Do not use any liquid or detergents.
- Coil cables when not in use. Loose cables may cause accidents.

Battery Replacement



Caution!

Risk of electric shock. Extreme caution should be observed at all times. Before replacing the batteries, disconnect all cords and wait 30 minutes before proceeding with the repair. Remove all metal objects attached to the body such as jewelry, wristwatch, and the like. Use properly insulated tools and handles. Strictly follow the instructions to avoid further damage and injury.

1. Make sure Explorer Mini is switched off.
2. Remove the screws on the side of the top plastic cover.
3. Remove the plastic cover. Remove the screws on the side of the top metal cover.
4. Remove the metal cover. Lift the battery and carefully disconnect the wires on the battery terminals.
5. Connect a new 12 V/9 Ah SLA battery
6. Connect the red wire to the positive (+) terminal
7. Connect the black wire to the negative (–) terminal.
8. Place the battery back to its position.
9. Place back the metal cover. Tighten all screws.
10. Place back the plastic cover. Tighten all screws.

Dispose replaced battery properly. Deliver the battery to its manufacturer for recycling or observe proper battery disposal.

Note:

Do not interchange the polarity of the wires. Black wire is for the negative (–) terminal and red wire is for the positive (+) terminal.

Troubleshooting

Refer to the table below to address minor problems regarding installation and operation of Tronix Explorer Mini. For problems that cannot be solved using the table, contact Innovatronix Customer Service (see Contact Information)

Problem	Possible Cause	Solution
No power	Battery empty	Plug Tronix Explorer Mini to a 100 to 240V AC outlet through its battery charger unit.
Not charging	Not plugged to supply	Charge Battery; Plug Tronix Explorer Mini to a 100 to 240V AC outlet through its battery charger unit.
	No power from supply	Ensure power is in the main supply to outlet. Use other power cord other than what is initially provided. If Tronix Explorer Mini still does not charge, contact Innovatronix Customer Service (see Contact Information)
Lighting equipment not working	Battery not charged	Plug Tronix Explorer Mini to a 100 to 240V AC outlet through its battery charger unit.
	Light equipment malfunctioning	Contact manufacturer of the equipment
	Incompatible equipment	Lighting equipment not compatible with Tronix Explorer Mini (see attached Compatibility Chart for compatible equipment)
Battery draining fast	Battery not fully charged	Charge Tronix Explorer Mini for 4 to 6 hours (12 to 15 hours if charging for the first time)
	Modeling lamps in flash units	Modeling lamps, when used with flash units, drains the battery faster. It is not advised to use modeling lamps with Tronix Explorer Mini as power source.
	Battery nearing end of its useful life	Battery performance decreases with time. Also, batteries age prematurely when placed in places with high temperatures. Replace battery. See Battery Replacement

Frequently Asked Questions

There are 2 models. How do I know which one will I need?

The model denotes the voltage output of the Tronix Explorer Mini. Select the model which matches the input voltage of your studio flashes or power packs (or other equipment).

For example, Tronix Explorer Mini 120-60 models are used by photographers in North America (Mexico, USA and Canada) and other countries such as Japan where the convenience sockets give 100-110V. Tronix Explorer Mini 240-50 models are used by photographers in Europe, Middle East, Africa, South and Central America, Australia, New Zealand and most parts of Asia and Asia Pacific regions.

How do I know if my strobe or power pack is compatible with Tronix Explorer Mini? Why not all strobes and power packs are compatible with Tronix Explorer Mini?

Tronix Explorer Mini is compatible to more digital strobes, including bi- voltage strobes compared to previous Tronix Explorer models. However, compatibility to all strobes and power packs in the market is not guaranteed due to differences in design of strobes and power packs between brands. For more information on compatibility of studio flashes: <http://www.innovatronix.com/compatib.asp>

In a few cases, digitally controlled strobes will not be compatible with Tronix Explorer Mini. This is because after a flash is fired, the capacitors inside the strobe will draw a large inrush current. Tronix Explorer Mini cannot adequately provide such current. Thus, for a few seconds, the voltage output will be less than adequate. This is not a problem for analog flash, however. Analog flash can tolerate this voltage drop. For digital flash units, this will probably cause a reset of its settings to power up stage. Though this case is not damaging to the flash or Tronix Explorer Mini, the flash will just not work properly.

For incompatible bi-voltage strobes, due to voltage drop of the inverter when the flash is fired and during recycling time, the bi-voltage strobe is unable to find its working voltage, either 110V range or 230V range, thus causing the relays to flip over which can damage the flash overtime. Some bi-voltage strobes are compatible because Tronix Explorer Mini is able to charge the flash before its software can detect the abnormality or voltage drop.

How do I charge the Tronix Explorer Mini?

Using the battery charger unit, connect the charger to the inverter unit. Then, plug in the charger to the convenience socket, 100V to 240VAC For a fully discharged battery, except for the initial charging, charging can take about 4 to 6 hours.

How many pops can I expect with one full charge?

The number of pops will depend on the type of flash unit and the power loaded to Tronix Explorer Mini. Small loads will produce greater number of pops and faster recycling time compared to large power loads.

Even at same power rating, for example, a 500ws bi-voltage flash and a 500 ws analog flash, and connected to the same fully charged Tronix Explorer Mini, these flashes will give different number of pops. In most cases, the analog flash will give more pops than the bi-voltage flash.

What are the things to watch out when using Explorer Mini?

Just like any portable power source from batteries, the recycling time of Tronix Explorer Mini for flash units and power packs can never be faster than the recycling time when a flash unit or power pack is plugged directly from a convenience outlet or power line. In addition, modeling lights should be switched OFF as continuous load drains the battery at a higher rate.

Are there any maintenance tips on storing Tronix Explorer Mini?

The unit should be switched OFF when not in use. Leaving Tronix Explorer Mini ON and not in use will severely damage the battery. Its battery can be left plugged even after it is fully charged. The product uses trickle-charging technique so the battery would not be over charged. This practice also maintains the battery's optimum life span.


What is the expected life span of the Tronix Explorer Mini battery? How much would be the replacement battery?

Tronix Explorer Mini batteries are rated at 300 charge-discharge cycles or about a year of everyday use or the battery's actual usage. Should the batteries be needed to be replaced, use only batteries provided by Tronix or with the same specification (see Technical Specifications). Tronix Explorer Mini uses one (1) 12V/ 9Ah Sealed Lead-Acid battery. Other batteries may not be suitable to Tronix Explorer Mini and can cause electrical hazard or injury

What are the Customer Satisfaction Guarantee and/or Warranty?

Only items with manufacturing defects should be returned for a full refund if purchased within the last 30 days and will be replaced in about 10-15 days. All costs are charged to Innovatronix Inc. It also carries a 30-day satisfaction guarantee. This program applies only to units directly purchased from Innovatronix. For units purchased from a retailer or third party vendor, refer to their guarantee and warranty programs or contact us for authorized service centers in your country.

Technical Specifications

Feature	Specifications	
Models	120 - 60	240 - 50
Inverter Output		
Power Capacity	500 VA 350 W max. at 0.8 pf	
Voltage	120 V \pm 5% ~	240 V \pm 5% ~
Frequency	60 Hz	50 Hz
Current	3.3 A	1.6 A
Waveform	Pure Sine Wave	
Socket	NEMA-5 (x2)	Schuko (x1) / Universal (x1)
Inverter Input		
Voltage	100 V – 240 V ~	
Current	460 – 220 mA (drained battery) 40 – 20 mA (full battery)	
Connector	IEC C14	
Inverter Battery		
Type	Maintenance-free, Valve regulated lead acid (x1)	
Voltage	12 V  (per battery)	
Capacity	9 Ah	
Charging Time	4 to 6 hours	
Run Time	On-line (6 – 8 hours at no load)	
Inverter Indicators		
Visual	Green LED for power Red LED for battery status	
Inverter Physical Characteristics		
Dimensions	8 cm X 19 cm X 25 cm	
Net Weight	5 Kg. (18 lb.)	
IP Rating	IP20	
Operating Temperature	-15 °C – 70 °C (5 °F – 158 °F)	
Charger Output		
Voltage	14 Vdc	
Current	1.5 A	
Connector	Coaxial	
Charger Input		
Voltage	100 V to 240 V	
Current	50/60 Hz	
Frequency	222 mA to 93 mA	
Connector	IEC C14	
Charger Indicators		
Visual	Red LED for POWER Green LED for battery full	
Charger Physical Characteristics		
Dimensions	5 cm x 7 cm x 13 cm	
Net Weight	5 kg	
IP Rating	IP20	
Operating Temperature	-15 °C – 70 °C (5 °F – 158 °F)	

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