

TABLE OF CONTENTS

1. Important Safety Information
2. Introduction
3. Getting Started
4. Troubleshooting and Error Codes
5. Battery Replacement
6. Routine Maintenance
7. Specifications
8. Help Desk Support



1. IMPORTANT SAFETY INFORMATION

WARNING



READ AND SAVE THESE INSTRUCTIONS – This manual contains important instructions for your PowerPak that should be followed during installation and maintenance of the UPS and batteries.

1. Your PowerPak is intended for use in an indoor controlled temperature area free of conductive contaminants.
2. This PowerPak generates a modified square wave and is for use with portable computers and electronic data processing loads only.
3. Do not disassemble the PowerPak upper chassis; there are no internal user serviceable parts including fuses.



CAUTION: Hazardous live parts inside remain energized when input AC power is disconnected. Attempting to service the PowerPak could cause an electrical shock or fire. Contact the manufacturer, or distributor for servicing information.

4. To reduce the risk of electrical shock, switch the PowerPak to standby mode, and unplug the unit before attempting to perform any maintenance or cleaning.
 5. To reduce the risk of damage to the cord or electric plug, always disconnect the PowerPak charge cord by pulling the plug and not the cord.
 6. Do not operate the PowerPak if it has received a sharp blow, or has been dropped or damaged in any way. Take it to a qualified service person.
 7. To reduce the risk of overheating or fire, keep the ventilation openings clear.
 8. When replacing batteries use only replacement batteries recommended by the manufacturer – see battery replacement elsewhere in this manual.
- Risk of Energy Hazard. Before replacing batteries, remove conductive jewelry such as chains, wrist watches and rings. High energy through conductive material could cause severe burns.
 - Do not dispose of batteries in a fire. The batteries may explode.
 - Do not open or mutilate batteries. Released material is harmful to the skin and eyes. It may be toxic.
 - The negative (-) black lead is connected to the chassis.
 - Risk of electric shock and hazardous live parts inside this unit are energized from the battery supply even when the input AC power is disconnected. Turn the AC output switch off, disconnect the input AC at the line cord and the battery at the battery connections.
 - The power supply cord is the means for main disconnect.
 - Grounding reliability can only be achieved when the equipment is connected to an equivalent receptacle marked “hospital grade.”
 - Where the integrity of the external PROTECTIVE EARTH CONDUCTOR arrangement is in doubt, EQUIPMENT should be operated from its INTERNAL ELECTRICAL POWER SOURCE

1. IMPORTANT SAFETY INFORMATION (CONTINUED)

Federal Communications Commission Warning

This device complies with Part 15 of the FCC Rules and Regulations.

Operation is subject to the following two conditions:

- This device may not cause harmful interference and
- This device must withstand any interference received, including interference that may cause undesired operation.

The PMIEX2430XTS AND PMIEX2430XZXP have been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules and Regulations. These limits are designed to provide reasonable protection against harmful interference when this equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio-frequency energy and, if not installed and used in accordance with the installation manual, may cause harmful interference to radio and television communications. Operation of this equipment in a residential area is likely to cause interference, in which case the user will be required to correct the interference at his or her own expense. Do not attempt to repair or modify this equipment. Any repairs to the unit must be performed by Power^Up or a Power^Up authorized representative.

- Maximum Combined Output = 2.5A 120VAC
- Classification: Class 1
- No applied parts
- Ordinary EQUIPMENT (enclosed EQUIPMENT without protection against ingress of water).
- No sterilization or disinfecting required.
- EQUIPMENT not suitable for use in the presence of a FLAMMABLE ANAESTHETIC MIXTURE WITH AIR or WITH OXYGEN OR NITROUS OXIDE.
- Intended for continuous operation.

1. IMPORTANT SAFETY INFORMATION (CONTINUED)

Markings



On - the rear switch in this position will allow your PowerPak to energize the rear power outlets. If the unit is plugged in at the time this switch is moved to the on position it will not be necessary to energize the PowerPak, once the unit is unplugged from power.



Standby - Moving the rear switch to this position will turn off the AC power at the rear outlets. **CAUTION:** Hazardous live parts inside remain energized when the PowerPak is in standby. The power supply cord is the means for main disconnect. Do not at any time attempt to disassemble the PowerPak.



On for part of the equipment - When the rear switch is switched to the on position when the PowerPak is not plugged into an AC outlet it will be necessary to push this button to energize the rear AC outlets.



Caution or Warning - Take all necessary safety precautions when you see this mark.

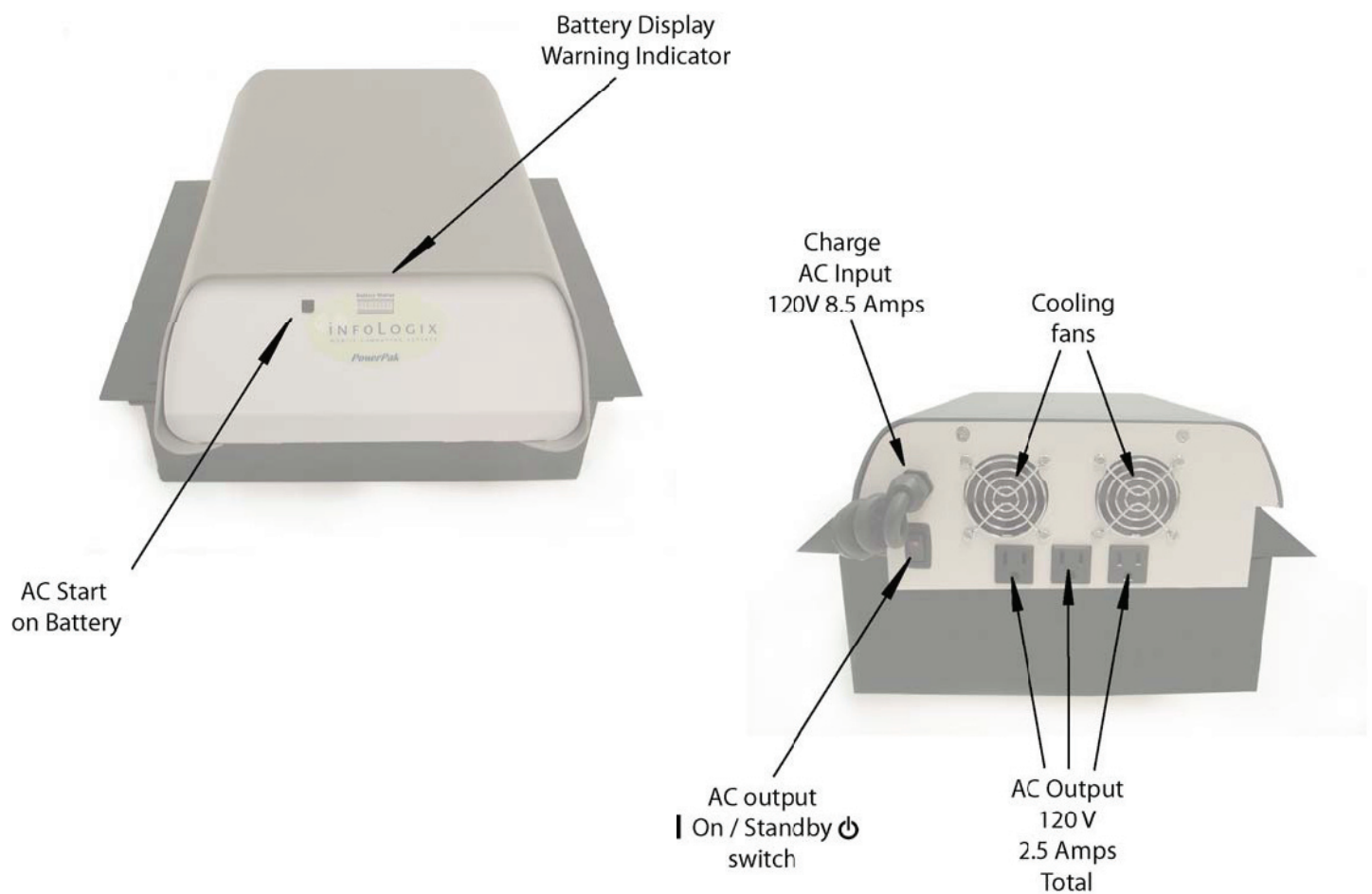


Dangerous Voltage Present - Take precautions in the area where you see this mark. Dangerous voltages may be present.

2. INTRODUCTION

Congratulations on the purchase of your new PowerPak mobile power supply. With improved battery monitoring and diagnostic capabilities, your new PowerPak has been designed to provide you with trouble free mobile power for all your portable cart based computer needs.

Please read this manual to understand the capabilities of your new PowerPak battery, and how to operate and care for your PowerPak battery.



3. GETTING STARTED

Installation

Mount your PowerPak battery to a suitable cart base bracket, available separately to adapt your PowerPak battery to your chosen cart. The bracket should be manufactured of 13 Gauge (.090") steel and the battery should be mounted using 4 5/16 steel bolts or screws.

Install your computer and accessories to the cart following their respective procedures and plug each device into an available outlet on your PowerPak. Route and secure all cords, including the PowerPak coiled supply cord, to ensure no cords will drag or get caught as your mobile cart is moved.

Turning the PowerPak On

Your PowerPak is shipped ready to use. Before turning on your new PowerPak for the first time, be sure the rear PowerPak switch is in standby (down) position, and only approved computers and accessories are plugged into the AC outlets on the back of the unit and turned off.

You can now turn on your PowerPak by switching the rear switch from the standby (down) position, to the on (up) position.

If your PowerPak is plugged into an AC wall outlet, this will automatically energize the outlets on the back of the PowerPak battery.

If your PowerPak is not plugged into an AC wall outlet, it will be necessary to push the front start button to turn your PowerPak on and energize the AC outlets on the back of the PowerPak.

You can now turn on the computer or accessories attached to your mobile PowerPak, following the devices specific instructions.

Turning the PowerPak Off

Before turning your PowerPak off, be sure to follow the manufacturer's recommendations for turning off the equipment and computers powered by the PowerPak.

To turn the PowerPak off, switch the rear switch to the standby (down) position.

In standby mode your PowerPak will always charge the battery when plugged into an AC power source, but will not provide AC power to the rear outlets.

3. GETTING STARTED (CONTINUED)

Charging

To charge your PowerPak, plug the PowerPak AC cord into a suitable AC wall outlet at any time. Your PowerPak will automatically detect the battery status and begin charging the internal battery. This will be indicated by a blinking front display. There is no need to fully discharge the battery before charging; plug it in at any time. For best performance, do not leave your battery completely discharged. When your PowerPak runs down always charge it immediately. Charge it once a month during storage.

When your battery is fully charged, it will automatically switch to float charge. This will be indicated by 3 solid green LED's on the front indicator. It is OK to leave your battery plugged in while these 3 green LED's are lit.

NOTE: The red LED's are only used as a low battery warning and will not light during other display functions. When you are charging a fully drained battery, the charge status will begin by blinking the amber status light on the left of the display.

LED Display Reset

When deploying your PowerPak battery for the first time, it will be necessary to reset the front display. This will allow the battery to accurately display charge and discharge status on the front 10 segment LED display.

To do so, first plug the battery in and charge it up completely (3 green LED's).

Make sure your system is powered up, computer, monitor and any peripheral are on, and unplug the battery from the wall outlet.

Operate your computer system as you would normally on battery power, until the battery shuts the system down. Do not plug in to charge, or turn the computer off before this time.

When the battery shuts itself off during an uninterrupted full discharge, the front LED's will be reset and accurately track battery charge and discharge status.

The battery can now be charged and used normally.

3. GETTING STARTED (CONTINUED)

Discharge Status

Your PowerPak battery will communicate its status to you using the 10 segment LED indicator on the front display. During operation a solid LED will move from right to left on the display to indicate the capacity left in the battery. When the PowerPak reaches the first red indicator all the way to the left it is time to plug your PowerPak in and charge the battery.

If you continue to run your PowerPak on battery, it will sound an audible alert every 10 seconds to remind you to plug your PowerPak into an AC outlet to charge. After this warning period the PowerPak will automatically disconnect the AC output going to the outlets on the back and shut itself off to preserve the onboard battery.

It will be necessary to plug the PowerPak in before power can be restored to the computers or accessories plugged into the PowerPak.

NOTE: When the PowerPak shuts off the AC power, computers without internal batteries like laptops will shut off, causing the possible loss or corruption of data.

Charge Status

When charging, a blinking LED light will move from left to right, as capacity is returned to the battery. Your battery will be fully charged when the charger automatically switches to float charge, indicated by 3 solid green LED's.

Your battery can be taken off charge at anytime during its charge cycle, however it is recommended to allow the battery to reach the final green LED on the right, before you terminate the charge.

NOTE: The red LED's are only used as a low battery warning, and will not light during other display functions. When you are charging a fully drained battery, the charge status will begin by blinking the amber status light on the left of the display.

6. TROUBLESHOOTING AND ERROR CODES

Problem	Condition	Cause	Notes	Solution
3 solid Red LED's one beep every 15 seconds	Overload	The battery is rated to a maximum output of 300 watts; this rating has been exceeded.	If the PowerPak is left in the overload condition or the load increased it is possible the PowerPak will protect itself by shutting off	Remove excessive load from PowerPak, turn the PowerPak rear switch to standby (down) and turn on again.
3 blinking red LED's two beeps every 15 seconds	Over temperature	The internal temperature of the PowerPak exceeded its maximum allowable operating temperature.	When the PowerPak reaches its temp limit when plugged in, it will suspend operation until the temperature is reduced to a safe level. If the PowerPak is operating in battery mode it will shut off and need to be manually restarted.	Remove the PowerPak from the over temperature condition, restart the PowerPak if operating in battery mode.
2 yellow LED's	Severely low batteries	The onboard batteries have reached the end of their useful life.	See battery replacement section in users manual	Replace onboard battery pack.
Battery beeps and shuts down before display lights up the last red LED	Battery Display needs to be reset	New battery, display not reset during setup, or battery display needs to be reset as it ages.		Reset battery display
Battery display looks like it is discharging fast, then sits on red for an extended period of time	Battery Display needs to be reset	New battery, display not reset during setup, or battery display needs to be reset as it ages.		Reset battery display

5. BATTERY REPLACEMENT

To replace the PowerPak internal battery, first turn off and unplug the PowerPak following the procedures outlined in turning the PowerPak off.

1. Remove the screws holding the lower battery box to the upper chassis.
2. Carefully separate the battery box from the upper chassis.
3. Disconnect the 2-position connector connecting the battery box to the upper chassis.
4. Remove the temperature sensor from the face of the internal battery.
5. The PMI32600 battery replaces the lower battery box as well as the batteries. No additional disassembly is required.
6. Connect the new 2-position connector from the new batteries to the upper chassis.
7. Reconnect the temperature sensor in the location marked on the new battery.
8. Carefully align the battery box and the upper chassis, to be sure wires are not pinched between the box and upper chassis.
9. Reinstall the screws to secure the battery box to the upper chassis.
10. Reset the PowerPak display to function with its new batteries.

When replacing batteries, replace with the following battery: PMI32600

- Risk of Energy Hazard, 12V, 18 Ampere-hour battery.
- Before replacing batteries, remove conductive jewelry such as chains, wristwatches and rings.
- High energy through conductive material could cause severe burns.
- Do not dispose of batteries in a fire. The batteries may explode.
- Do not open or mutilate batteries. Released material is harmful to the skin and eyes. It may be toxic.
- The negative (-) black lead is connected to the chassis.

Disposal

Do not discard the battery in the trash. Contact your local battery recycler and recycle the internal Lead Acid batteries properly, in accordance with local codes.

- Do not dispose of batteries in a fire. The batteries may explode.
- Do not open or mutilate batteries. Released material is harmful to the skin and eyes. It may be toxic.

6. ROUTINE MAINTENANCE

LED Display

Your PowerPak uses sophisticated software to track the capacity left in the onboard battery using the 10 segment LED. Your PowerPak will automatically update its display accuracy data each time the battery is discharged to the point where it shuts itself off.

It is recommended at regular intervals to reset your PowerPak LED Display, or if you encounter any inaccurate readings on the front battery display indicator, or if you replace remove, or add a component to the system being powered by the battery. Or replace the PowerPak's internal battery.

Preventative Maintenance

Should any service be required on your PowerPak battery, contact your distributor or point of purchase to locate the authorized service center near you.

To ensure long battery life it is best to keep the battery fully charged during storage, or for long periods of no use. Storing your PowerPak for a period of time with a discharged battery may destroy or limit the batteries' ability to recharge and provide long runtimes. Always charge a discharged battery immediately.

Inspect your battery at least once a month for the following items:

1. Check the coiled input cord integrity, check for cuts or nicks in the wire insulation, and check the security of the plug and plug prongs.
2. Check that the fans are clear of obstruction and that all openings are open and clear of obstruction.

Cleaning

All maintenance and cleaning should be performed with the rear power switch on the PowerPak in the off position, and the unit unplugged from any power source. Should the fans or the ventilation holes become obstructed, it will be necessary to clear them with a soft dry brush, or a vacuum cleaner to remove the obstruction. Clean the exterior of the PowePak with a damp cloth. DO NOT clear any obstructions with your fingers or stick anything into the fans or openings of your PowerPak.

7. SPECIFICATIONS

Electrical

- Input Power: 120 VAC 8.5 A 60 Hz
- Output Power: 120 VAC 2.5A 60Hz
- 300w 300VA
- Output Waveform: Modified square wave
- Low Battery Shutdown: 22 volts
- Efficiency: 90%

Physical

- Length: 18 inches
- Width: 11.5 inches
- Height: 10 inches
- Weight: PMIEX2430X18 - 45 Lbs
- Weight: PMIEX2430X28 - 60 Lbs
- Weight: PMIEX2430X12 - 38 Lbs
- Weight: PMIEX2430X33 - 72 Lbs

Battery

- PMIEX2430X18 PMI24180NB
- PMIEX2430X28 PMI24280NB
- PMIEX2430X12 PMI24120NB
- PMIEX2430X33 PMI24330NB

Specifications are subject to change without notice.

Transport & Storage Conditions: -40 C - 85 C

8. HELP DESK SUPPORT

Our Help Desk is available when you need quick answers to your troubleshooting questions. Our expert technicians have been providing technology support for more than a decade. We offer basic services as well a wide range of optional custom services.

To initiate a support, call 215-639-8899. At the menu prompt, select InfoLogix support. We can be reached Monday through Friday from 8:30 a.m. to 5:30 p.m. EST.

The Support analyst will require the following information to process your call:

- Company Name
- Contact
- Address
- Phone Number
- Email Address
- Description of problem - please be prepared to supply model and serial number.

You will be sent via email a replacement request form that must be completed, signed and returned via fax to 215-639-9538 before we can obtain a RMA (Return Materials Authorization).

We will contact you with this information. When the replacement battery is received, the inoperable battery is to be immediately returned. This address is noted on the replacement request form. You will receive a follow up call from support to confirm that you have received your battery and you are once again operational.