VAGABOND MINI™
LITHIUM

VAGABOND MINI™ LITHIUM QUICK START GUIDE:

1. CHARGE the battery.
We recommend charging the battery as soon as the system is unboxed. You will charge the battery using the provided VMC3A battery charger. First, plug the charger's two-pronged AC power cord into a suitable AC power source (the LED on the battery charger will shine green to indicate the connection). Next, connect the charger to the **Vagabond Mini™ Lithium** using the cord with the red and black Anderson connectors. Insert the connectors red-to-red and black-to-black in the Anderson sockets located on the faceplate of the unit (labeled "CHARGER"). The LED on the battery charger will shine **RED** while the battery is charging and shine **GREEN** to indiciate that the battery is fully charged (note: this LED is on the battery charger, NOT on the inverter). *Although the system arrives with the battery connected to the inverter, you may also charge the battery (or an external spare battery) by plugging the charger directly into the connectors on the battery itself. See page 7 to learn more.*

2. CONNECT your flash units.
Plug one or two flash units into the AC power outlets located on the front panel faceplate, or connect up to four units by using a multi-outlet extension cord or power bar. ***Note:*** *Always use grounded outlets and extension cords. Depending on the type of flash units and power settings used, you may be able to successfully power up to four flash units.*

3. TURN ON the Vagabond Mini™ Lithium system.
Turn your system ON with the ON / OFF power switch.

4. TURN ON the connected flash units.
Turn on each flash unit / power pack in your setup normally, using the ON / OFF power switch on each individual unit.

5. TURN OFF the MODELING LAMP(S) in your flash units.
Modeling lamps should generally be turned off when used with **Vagabond Mini™ Lithium**, as the continuous current draw of modeling lamps will quickly deplete the battery and will increase recycle times or may cause the inverter to overheat or shut down. *See the* ***WARNINGS*** *section on the following page for more.*

The Vagabond Mini™ Lithium is a PAUL C. BUFF, INC.™ product • www.PAULCBUFF.com
2725 Bransford Avenue Nashville, Tennessee 37204 • Toll Free 1-800-443-5542

Warnings and Safety Information

WARNING! DANGER! Do not leave your Vagabond Mini™ Lithium system unattended when it is turned on and / or in use. As with all electronic equipment, close supervision is necessary. Turn the system OFF when not in use to avoid depletion of the battery.

WARNING! DANGER! Do not allow unattended children around this equipment as potentially dangerous conditions may result. These dangers may include burns and electrical shock hazards, with the possibility of falling equipment if cords are tripped over.

WARNING! The battery charger can get VERY HOT while charging. It can get startlingly hot to the touch. Do not place the charger on fabric or on any other material that will insulate the case while it is in use. Always use the charger in an open area. Unplug the charger after use and let the case cool before handling it.

WARNING! Do not operate the Vagabond Mini™ Lithium in or around water. Never operate the system in the rain; in wet, damp or moist conditions; or in environments where water or other liquid could be dropped, splashed, sprayed or spilled on the system. The system should only be used in dry, moderate conditions where the equipment is protected from rain, dirt, sand and dust. Do not place the system vent-down on the ground where sand, dust, dirt or any ground moisture could enter the unit's housing. If the unit gets wet, discontinue use immediately and contact us.

WARNING! Do not use the equipment in restricted areas. Do not use any Paul C. Buff, Inc.™ equipment without permission in restricted areas.

WARNING! Do not use the equipment in explosive environments or around flammable materials. Do not operate or store the system in, on, or near fire, flames or heated surfaces. Do not smoke or use a lighter and/or matches around the system.

WARNING! Do not obstruct the ventilation holes. Do not insert any foreign objects into any ventilation holes or cover the ventilation holes with outside materials.

WARNING! Do not use ungrounded power cords, power outlets or power strips. Always use three-prong, grounded power cords and extension cords when connecting flash units / power packs. Do not use outlet adapters that defeat the third prong.

WARNING! Do not attempt to operate flash units with the modeling lamps turned on. The system is not designed to operate modeling lamps continuously as this will deplete the battery rapidly, cause slow recycle times, and could overheat the system's inverter. Modeling lamps may be turned on very briefly for composition but should be set to the lowest visibly acceptable output and set to extinguish during recycle. When using multiple flash units, the total combined modeling lamp wattage of all lights used during preview must be under 120 Watts. ***Note: The system cannot power a 250 Watt modeling lamp at full power.*** *Einstein™, White Lightning™ and Zeus™ system users must reduce the output of the lamp to 120 Watts or less, or use a lower wattage lamp (still only for brief periods of time). For Einstein™ users, we offer a 25 Watt modeling lamp (part no. 25W) - please contact us or see our website to learn more (www.paulcbuff.com/modelinglamps.php).*

WARNING! Do not connect 120V equipment to a 230V Vagabond Mini™ Lithium. Do not connect 220V/230V equipment to a 120V Vagabond Mini™ Lithium. The standard flash units sold

by Paul C. Buff, Inc.™ in the U.S. and Canada are 120V flash units, designed for use with the standard 120V **Vagabond Mini™ Lithium** system.

WARNING! Do not put a continuous load higher than 120 Watts on the inverter as this may cause the unit to overheat and shut down. You may be able to operate some auxiliary equipment with the system, but operating auxiliary equipment while operating flash units at the same time on one system will degrade the ability to recycle the flash units. *See page 11 of this manual for more information on operating auxiliary equipment.*

WARNING! Do not transport your Vagabond Mini™ Lithium system with any components unprotected. Use care when traveling with, shipping, or otherwise transporting your **Vagabond Mini™ Lithium** system. Use appropriate packaging to protect the system against bumps and jolts that may damage the components.

WARNING! The Vagabond Mini™ Lithium contains no user-serviceable parts. Never open or disassemble your system. Repairs should only be performed by authorized, competent service engineers. Likewise, do not attempt to make any changes or modifications to your system. Changes and/or modifications made, outside of those performed or approved by Paul C. Buff, Inc.™, may present hazardous conditions and void the warranty. If the system or any internal component has been dropped or damaged, discontinue use and contact our Customer Service team.

WARNING! DANGER! The Vagabond Mini™ Lithium contains no edible components and may be harmful if swallowed or ingested. Never eat any portion of the system or insert any portion of the system into the body as the components may cause choking and/or be toxic to the body.

The complete **Material Safety Data Sheet (MSDS)** for the **Vagabond Mini™ Lithium** battery is available for download on our website (www.paulcbuff.com/manuals.php) or we can send you a hard copy by mail. To request a hard copy, please contact our Customer Service team.

Your Satisfaction Guarantee and Factory Warranty

The **Vagabond Mini™ Lithium** arrives with our **60-Day Absolute Satisfaction Guarantee**. If you are not satisfied with the system for any reason, you may return it within 60 days for a complete refund, minus the cost of shipping.

The **Vagabond Mini™ Lithium** also arrives with our **1-Year Factory Warranty**. This warranty is limited to the repair or replacement only of a unit that has become defective under normal use, as outlined in this manual. Since battery capacity is a function of the number of charge / discharge cycles, batteries are considered exhaustible and no warranty can be offered for batteries that have been depleted from heavy and frequent use. Take care to follow the instructions within this manual to ensure proper use and to get the most life out of your system.

Should you have any questions, need any assistance, or require service, please contact our Customer Service team. We're here Monday through Friday, from 9:00 am until 5:00 pm, CT. Please call us on our Toll Free (1-800-443-5542) or local (615-383-3982) customer service lines and we'll be happy to assist you.

VAGABOND MINI™ LITHIUM General Description and Specifications

The **Vagabond Mini™ Lithium (VM120)** provides portable, battery power for photographic flash units manufactured by Paul C. Buff, Inc.™, including White Lightning™ units (Ultra, ZAP, UltraZAP, and X-Series), AlienBees™ units (B400, B800, B1600, and ABR800), Zeus™ power packs (Z1250 and Z2500), and Einstein™ units. The system includes an internal battery and a power inverter, conveniently connected and enclosed in a strong, high-impact, flame retardant housing. The system gives you the ability to power flash units (units that normally require AC power line connection) in locations where a suitable power source is unavailable or unreliable.

The 230V version of the **Vagabond Mini™ Lithium (VM120-230V)** provides portable battery power for 220V / 230V Paul C. Buff, Inc.™ flash units, including Einstein™ units and 220V AlienBees™ units. This version includes the same battery, charger and casing, but includes the 230VAC inverter. ***Note:*** *Do not connect 120V flash units to a 230V system as this can damage the flash units.*

Battery Type	LiCoxNiyMnzO2 lithium battery
Battery Volts / Amp-Hours	14.8V / 8.8AH
Battery Watt-Hours (Energy)	130 Watt-Hours
Maximum Continuous Current	30ADC
Full Charge Voltage	16.6VDC
Cutoff Voltage	11VDC
Battery Charger Input	95VAC to 250VAC, 50/60Hz
Battery Charger Output	16VDC, 3A
Charging Time	3 to 4 hours to full charge *(with VMC3A charger)*
Total Powering Capacity	typically 1 to 4 **Paul C. Buff, Inc.™** flash units**
Inverter Fuse (Front Panel)	30A automotive-type fuse
Total Weight	3.5 pounds (with battery)
Dimensions	2.75” x 4.3” x 7.5” (without stand clamp)

Your VAGABOND MINI™ LITHIUM Arrives With

1. The Internal CU120 Vagabond Mini™ Lithium Inverter (in VM120 systems for use with standard Paul C. Buff™ flash units / power packs): The CU120 is a power inverter made exclusively for the **Vagabond Mini™ Lithium** system. The unit converts the power from the internal battery to a 120VAC, 60 Hz current-controlled, pure sine wave power source, specifically engineered for powering Paul C. Buff, Inc.™ units. The converted power is similar to the power that you would get from a standard power line when shooting in the studio with your flash units / power packs connected to an AC power outlet. In order to allow single or multiple studio flash units to operate from a small inverter, the inverter must act as a 120VAC voltage generator when it is not overloaded, but must revert to becoming a continuous current source when the flash charging current demand exceeds its continuous power rating.

To accomplish this, the inverter maintains a sine wave output during current limiting, but drops the AC voltage by whatever amount is required to keep the inverter safely within its power handling capability. When recycling a single AlienBees™, White Lightning™ or Einstein™ unit, the voltage emitted by a 120VAC **Vagabond Mini™ Lithium** typically drops to about 80VAC during the initial recycle period, then builds back up to 120VAC as the unit charges (typical for other brands of similar studio flash units as well). If more than one flash unit is connected to a single **Vagabond Mini™ Lithium**, the voltage will drop as low as 35VAC. Recycle time will become correspondingly longer as the limited current is shared between the flash units. ***Note:*** *All Paul C. Buff™ lights (including Einstein™ units) are designed to tolerate this voltage drop ("brown out"), as can most purely analog studio flash units, to varying degrees. However, most manufacturers of digitally controlled studio flash units failed to anticipate operation with current limited inverters and designed the microprocessor power supplies to shut down at about 85VAC input. Thus, many such units will not tolerate operation with small current limited inverters, and will simply crash. This is particularly true when multiple units are attached to a single inverter.*

- or -

1. The Internal CU120-230V Vagabond Mini™ Lithium Inverter (in VM120-230V systems for use with 220V / 230V AlienBees™ and Einstein™ units): The 230V model of the **Vagabond Mini™ Lithium** system contains the CU120-230V power inverter. The unit converts the power from the internal battery to a 230 VAC, 50 Hz current-controlled, pure sine wave power source, specifically engineered for powering 220V / 230V Paul C. Buff, Inc.™ units. The converted power is similar to the power that you would get from a standard power line when shooting in the studio with your flash units / power packs connected to an AC power outlet.

VM120 system:
two standard 120VAC outlets on the CU120 inverter

VM120-230V system:
two Australian / Chinese Type I 230VAC outlets on the CU120-230V inverter

2. The VMB8.8A Vagabond Mini™ Lithium Battery Pack: The 14.8V, 8.8AH lithium battery arrives attached to the inverter, ready to charge and use. It provides 130 watt-hours of energy and may be discharged to approximately 95% of its capacity before the internal protection circuitry causes shut down. Recycle time of attached lights remains constant from the first shot to the battery depletion point.

Unlike Sealed Lead Acid (SLA) batteries, the lithium battery cannot sulfate and thus can be fully discharged and stored in a discharged state without damage to the battery. Simply recharging the battery restores it to full capacity. The battery can be fully discharged and recharged approximately 500 times before losing 30% of its capacity. Even longer life can be realized by recharging the battery before it is completely discharged. Best results are obtained by charging the battery before each use. Frequent charging of a partially discharged battery has no negative effect on the battery.

3. The VMC3A Vagabond Mini™ Lithium Universal Rapid Battery Charger (95-250VAC): The battery charger is a rapid-charging device designed to recharge the VMB8.8A battery in approximately three hours from the fully discharged state. The charger is connected to the system on the front panel faceplate (on the inverter), or connected directly to a battery that is not inserted in the unit (a spare battery), then connected to a suitable AC power source. Leaving the charger in place after charging is complete has no negative effect. *See detailed charging instructions on page 7.*

4. The VMSTRAP Removable Shoulder Strap: Each system arrives with a convenient shoulder strap that loops through strap holes on either side of the faceplate.

5. The Removable Light Stand Mounting Clamp: A light stand clamp arrives with each system allowing it to be clamped to a light stand. The clamp attaches underneath the unit with a 1/4-20 threaded screw. Turning the large black knob counter-clockwise opens the clamp to fit around the pole of your light stand. Turning the knob clockwise tightens the clamp to hold the system in place tightly around the pole.

VAGABOND MINI™ LITHIUM Optional Accessories

These optional accessories are each sold separately - visit us online or contact our Customer Service team to learn more.

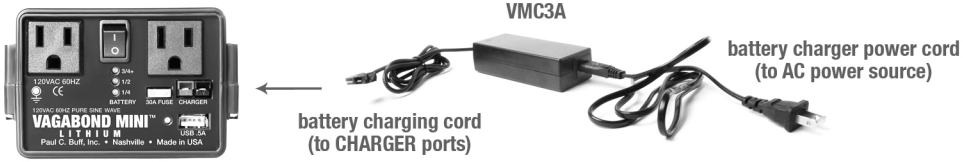
The VMBAG Vagabond Mini™ Lithium Carrying Bag is a convenient, soft-side carrying bag designed to carry your complete **Vagabond Mini™ Lithium** system (with the stand clamp attached) along with a spare battery. Front and side pouches additionally allow you to carry small items such as power and sync cords, remote controls and a small power strip for powering more than two flash units.

The VM-UPC3-120V 3-foot Power Cord is a standard 120V power cord for use with the VM120 system. This shorter cord is convenient when the system is clamped to a light stand and less length is needed between the light and the system.

We offer a **230V International Power Cord** for use with 220V AlienBees™ units or the Einstein™ unit (in 230V mode) with the 230V **Vagabond Mini™ Lithium** system. The international cords have Type I (Australia / China) plugs for use with the 230V Type I sockets and are available in standard 15-foot and shorter 3-foot lengths.

Charging Your VAGABOND MINI™ LITHIUM Battery

1. Turn the Vagabond Mini™ Lithium system OFF and locate the supplied battery charger. The supplied VMC3A Universal Rapid Charger (95-250VAC input) is used to charge the **Vagabond Mini™ Lithium** battery.

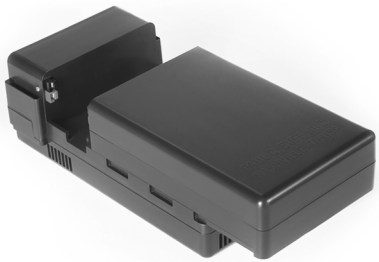


2. Plug the battery charger power cord on the VMC3A charger into a suitable AC power source. The battery charger power cord connects from the charger (a small rectangular box) to your AC power source with a standard, two-pronged male AC plug. The LED on the charger will shine green to indicate the connection. ***Note:*** *The battery may be charged globally on 95-250VAC power lines. When traveling to countries with different wall outlet configurations, standard outlet adapter plugs may be used on the battery charger power cord for outlet compatibility.*

3. Connect the battery charging cord to the inverter. Plug the red and black Anderson connectors on the battery charging cord into the corresponding red and black Anderson sockets (labeled CHARGER) on the **Vagabond Mini™ Lithium** front panel, connecting red-to-red and black-to-black.

4. When connected, the small LED light on the battery charger will shine red to indicate that the unit is charging. It takes approximately three to four hours to fully charge a fully depleted battery. When the battery is fully charged, the LED light on the battery charger will shine green. ***Note:*** *The charger cannot over charge the battery and the battery can be left connected indefinitely without damage.*

You may also charge the battery (or external spare batteries) by plugging the charger directly into the sockets on the battery itself. To reveal the sockets, you will need to remove the battery from the system using the small tab on the back of the unit that latches the battery in place. To remove the battery, press down on the spring-loaded tab and pull the battery backward out of the unit. To reinstall a battery after charging is complete, press down on the tab, position the battery in the slide-in slot, and slide the battery into place. If you encounter any resistance when you reach the position where the battery connector meets the mating connector, you may have to "wiggle" the front end of the battery slightly to engage the connectors. When the battery is fully seated, the spring loaded release tab should snap up into the locked position.



Note: *Do not set the unit down directly on the end with the battery tab, as this could cause the tab to break.*

Charging Your VAGABOND MINI™ LITHIUM Battery *continued...*

Continuous Charging During Use: For operating 120VAC lights in 230V studios with the VM120 system, the charger may be plugged into an AC outlet so that the unit is charging while in use, allowing continuous operation in most cases. This will replenish the battery as you are using it, but charging can fall behind battery discharging depending on how fast you are shooting and how many strobes you are using. Modeling lamps still cannot be used continuously in this type of usage.

Connecting Flash Units To Your VAGABOND MINI™ LITHIUM

1. Connect your flash unit(s).
Plug your Paul C. Buff, Inc.™ flash unit / power pack into one of the power outlets on the front panel of the inverter. With standard Paul C. Buff, Inc.™ units and the **VM120 Vagabond Mini™ Lithium** system, you will use the three-prong power cord provided with your flash unit (the UPC15 15-foot power cord or the optional, longer UPC25 25-foot power cord). If a shorter cord is desired, we offer a VM-UPC3-120V 3-foot power cord (standard IEC to three-pronged male connection).

The **Vagabond Mini™ Lithium** includes two grounded outlets, but the system can be used to power up to four flash units via a multi-outlet extension cord or power bar. The more flash units / power packs and total true wattseconds that are connected, the longer the recycle times. The practical limits are based more on the total amount of wattseconds being cycled than on the number of units. The largest practical load for the system is dependent on the particular flash units and power settings. Heavy loads can be expected to reduce the efficiency and will likely reduce the recycle rate.

With the **230V Vagabond Mini™ Lithium**, the power outlets on the inverter are 3-pronged Type I Australian / Chinese sockets. To plug your Einstein™ unit or 220V AlienBees™ unit into the **Vagabond Mini™ Lithium**, we offer a standard 15-foot (VM-UPC15-230V) and shorter 3-foot (VM-UPC3-230V) international power cord (standard IEC to three-pronged Australian / Chinese Type I male connection). ***Note:*** *These cords will connect the* ***Vagabond Mini™ Lithium*** *to virtually all brands of flash units that use the standard computer-style IEC power connector.*

2. Turn off your modeling lamps.
Set the modeling lamp(s) on your flash unit(s) to the OFF position. The system is not designed to operate modeling lamps continuously. This would deplete the battery rapidly, cause slow recycle times and could overheat the inverter if modeling lamps over 120 Watts are used. It is permissible to operate modeling briefly to compose the lighting. Once the lighting is composed the modeling lamps should be shut off. *See the* ***WARNINGS*** *section on page 2 for more.*

3. Turn on the Vagabond Mini™ Lithium.
Use the power switch on the front panel of the **Vagabond Mini™ Lithium** inverter to turn the system on. When first turned on, the orange LED located next to the USB voltage outlet and the three green LED battery status indicators should shine. After the system settles, the battery status LED lights (labeled 3/4+, 1/2 and 1/4) will shine to indicate the charge status of the battery.

If the battery is charged to **75% (3/4 full) or more,** all three lights will shine green.

When the charge status drops to **50% (1/2 full),** only the bottom two lights will shine green.

When the charge status drops to **25% (1/4 full),** only the bottom light will shine green.

When the charge status drops **below 25%,** all three lights will be dim.

Typical VAGABOND MINI™ LITHIUM Recycle and Battery Life

Total Ws Connected	Typical Recycle Time	Approximate Battery Life
160 True Ws	0.75 seconds to full	1500 - 2000 shots per charge
320 - 330 True Ws	1.5 seconds to full	800 - 1000 shots per charge
640 - 660 True Ws	3 seconds to full	425 - 550 shots per charge
1280 - 1320 True Ws	7 seconds to full	210 - 275 shots per charge

**** Notes on Recycle and Battery Life:**
AC powered studio flash units with very fast AC recycle times per Ws tend to draw significantly more current than typical flash units (units that recycle 500 to 650 Ws in around two seconds). An example of a unit with very fast recycle is the Paul C. Buff™ Zeus™ flash head and power pack, recycling 2500 Ws in just 2.4 seconds. These fast recycling flash units cause the inverter voltage output on the **Vagabond Mini™ Lithium** to drop much more than it would when used with units having more modest AC recycle rates. The physics of the current- limiting parameters cause fast AC recycling units to actually recycle slower from inverters than more moderate AC recycling units. This relationship applies to all current-limited systems, including Vagabond™ I systems, Vagabond™ II systems and inverters from other manufacturers. For example, one AlienBees™ B1600 flash unit (640 Ws) recycles in 2 seconds from AC power and 3 seconds from the **Vagabond Mini™ Lithium** system (213 Ws/second), while a Zeus™ unit (2500 Ws) recycles in 2.4 seconds from AC power, but takes over 20 seconds (120 Ws/second) from the **Vagabond Mini™ Lithium**. This relationship causes Einstein™ units, which cycle slightly faster than AlienBees™ and White Lightning™ from AC, to recycle slightly slower from **Vagabond Mini™ Lithium**. Our testing indicates Profoto units, which have very fast AC recycle times, *will not function at all* from the **Vagabond Mini™ Lithium**.

The VAGABOND MINI™ LITHIUM Fuse

A single blade-type 30A fuse is located on the front panel of the inverter so that you can check the fuse status and replace it if necessary. *It is extremely unlikely the fuse will blow unless a fault requiring factory service should occur in the inverter unit.* If the fuse has blown and needs replacement, first turn the system off and disconnect any flash units. Unplug the blown fuse and insert a new one in its place. Replacement blade-type 30A fuses are available locally at hardware, electronic and automotive stores.

The VAGABOND MINI™ LITHIUM USB Outlet

For your convenience, a 0.5A USB port has been included on the front panel of the inverter. This port can be used for charging devices with a USB cable connection (such as cell phones, mp3 players, etc.). The LED should shine orange when the system is first powered on and it should stay lit unless a USB device that draws more than .5A is connected.

Powering the VAGABOND MINI™ LITHIUM From An External SLA Battery

It is possible to operate the **Vagabond Mini™ Lithium** from an external 12 volt SLA battery such as a car battery. *Such usage is not optimal, but may be practical in some applications. When operated from a 12V battery, the battery fuel gauge will not provide an accurate indication of battery charge.*

To connect the **Vagabond Mini™ Lithium** to an external 12V SLA battery, first remove the VMB8.8A **Vagabond Mini™ Lithium** battery pack from the unit. You can then prepare a suitable cable for connection: the cable will need connections for your SLA battery on one end and an Anderson connector on the other end. Proper polarity must be observed, connecting red-to-red and black-to-black. With the VMB8.8A **Vagabond Mini™ Lithium** battery pack removed, plug the Anderson connector end of your cable into the back connector of the **Vagabond Mini™ Lithium** where the VMB8.8A battery pack normally connects.

While we do not sell this type of cable, our tech help department can help you to properly configure such a cable, walking you through the components needed. For technical assistance, call us on our Toll Free Line at 1-800-443-5542, Monday through Friday, from 9:00am to 5:00pm, CT.

Airline Travel With Your VAGABOND MINI™ LITHIUM System

The battery in the **Vagabond Mini™ Lithium** system is a 14.8V, 8.8AH lithium ion battery rated at 130 watt-hours. Lithium ion batteries such as these are regulated for air travel by both the U.S. Department of Transportation (DOT) and the International Air Transport Association (IATA). Based on the specifications of the battery, the current DOT and IATA regulations indicate that you *should* be able to travel by air with your **Vagabond Mini™ Lithium** system as carry on baggage. However, each individual airline carrier interprets and enforces these regulations as it sees fit, allowing or prohibiting travel on its vessels individually. Unfortunately, this means that there are no standard policies from airline to airline and they are subject to change, without notice, at the discretion of each airline.

You must check with your individual airline carrier before traveling with any Vagabond Mini™ Lithium components each time that you wish to travel by air in order to find out the updated, applicable regulations for your specific flight based on the specific items that you wish to travel with. To determine eligibility for travel, you may be asked for certain specifications of the battery which are both printed on the battery and provided in this manual. If needed, the complete **Material Safety Data Sheet (MSDS)** for the **Vagabond Mini™ Lithium** battery is additionally available for download on our website (www.paulcbuff.com/manuals.php) or we can send you a hard copy by mail. To request a hard copy, please contact our Customer Service team.

The VAGABOND MINI™ LITHIUM and Flash Units By Other Manufacturers

The **Vagabond Mini™ Lithium** is designed specifically for powering Paul C. Buff, Inc.™ products and we cannot make any claim for suitability with products from other manufacturers, nor can we accept any liability for any damage that might be caused to such equipment. We will, however, warranty the **Vagabond Mini™ Lithium** itself as well as any Paul C. Buff, Inc.™ equipment it powers.

Using the VAGABOND MINI™ LITHIUM To Operate Auxiliary Equipment

The **Vagabond Mini™ Lithium** may be used to power non-flash continuous loads for small electrical appliances such as fans, computers or radios. The maximum continuous power drawn in such applications is 120 Watts. If a continuous load is used in conjunction with flash unit use, this number should be reduced. It should be noted that when the **Vagabond Mini™ Lithium** is used to recycle flash units, the output voltage will not remain at 120 VAC (or 230VAC on the VM120-230V system); it will drop lower during the recycle period of the lights. Therefore, equipment that requires continuous 120 VAC (or 230 VAC) should not be used in conjunction with flash units. To the best of our knowledge, the momentary low voltage will not affect laptops connected via their battery chargers. However, AC-powered computers will likely crash under the “brown out” conditions and likely draw more than 120 watts. If you plan to power auxiliary equipment, you should consult the product’s manual and / or check with the product manufacturer to determine the power consumption. *It is not generally advisable to operate flash units and continuous power loads at the same time.*

Storing the VAGABOND MINI™ LITHIUM

When storing your **Vagabond Mini™ Lithium**, turn the system OFF and disconnect the battery charger. Even if the battery is fully discharged, it can be safely stored for months at a time without damage. There is no sulfating or "memory effect" as with sealed lead acid (SLA) batteries, like automobile batteries. In SLA batteries, sulfation occurs if the battery is discharged significantly and not immediately recharged. This process is cumulative and leads to premature loss of capacity and premature, permanent damage and failure. Unlike the sealed lead acid batteries used in the Vagabond™ II system, the initial Vagabond™, and most other battery/inverter type supplies, the LiCoxNiyMnzO2 lithium battery used in the **Vagabond Mini™ Lithium** system does not suffer from sulfation, or from "memory" effects, as did early NiCad battery packs. While the unit can be stored safely in any state of discharge for months at a time without damage, storing the unit in a partially discharged state, around 50%, in a cool place will enhance the useful life of the battery. The worst-case scenario for battery life would be to charge the battery to 100%, and then store it in a hot environment, such as an attic.