

# ODYSSEY<sup>®</sup> Ultimizer<sup>™</sup> CHARGERS

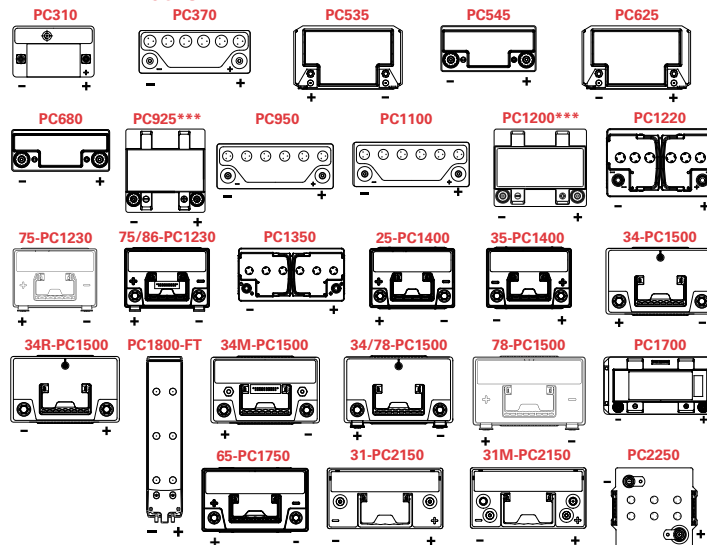


## Lightweight, portable and fast

Designed to support the full line of ODYSSEY<sup>®</sup> Extreme Series<sup>™</sup> batteries, ODYSSEY<sup>®</sup> Ultimizer<sup>™</sup> 12V chargers deliver big power for quick recharging. Yet they're safe enough to stay connected to the batteries indefinitely without damage.

- Three-step charge profile ensures fast, full and safe charging
- Continuous trickle charge keeps batteries fully charged during extended periods of non-use
- Sophisticated sequential charging technology enables the lightweight, compact design

### TERMINAL LAYOUTS



Drawing sizes are for terminal position reference only;  
diagrams are not proportionate to each other.  
\*\*\*Optional Reversed Polarity (L)

### About EnerSys<sup>®</sup>

EnerSys<sup>®</sup> is a global leader in stored energy solutions for automotive, military, and industrial applications. With manufacturing facilities in 18 countries, sales and service locations throughout the world, and over 100 years of battery experience, EnerSys is a powerful partner for automotive service and parts providers.



## HARRIS BATTERY COMPANY

10708 Industrial Parkway NW, Bolivar Ohio 44612

1-800-367-7670

HarrisBattery.com

© 2013 EnerSys. All rights reserved.  
Trademarks and logos are the property of EnerSys and its affiliates, except Gyrocopter<sup>™</sup> and Legends of the Outdoors<sup>™</sup>, which are not the property of EnerSys.

Publication No: US-EXT-MF-003 – December 2013  
Subject to revisions without prior notice. E.&O.E.

Powered by **EnerSys**  
Power/Full Solutions

ENGINEERED WITH THIN PLATE PURE LEAD  
(TPPL) TECHNOLOGY

# DRIVE IT TO EXTREMES



# ODYSSEY<sup>®</sup> Extreme SERIES<sup>™</sup>



www.odysseybattery.com

\*OMAX chargers are not water resistant.

# 2X THE POWER, 3X THE LIFE

ODYSSEY® Extreme Series™ batteries are designed and built to deliver twice the overall power and triple the service life of conventional batteries.

## Doing double duty

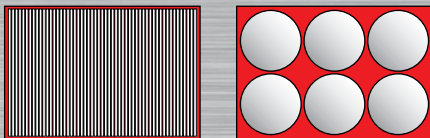
Some batteries offer enormous cranking power. Others, deep cycle reserve power. ODYSSEY Extreme Series batteries have both. Even at very low temperatures, they provide engine-cranking pulses in excess of 2250 amps for 5 seconds – double to triple the power of equally sized conventional batteries. And they can handle 400 charge-discharge cycles to 80% depth of discharge.†

## How so much power is possible

ODYSSEY Extreme Series batteries are made with flat plates made of 99.99% pure lead – not lead alloy. Pure lead plates can be made thinner, so we can fit more of them in the battery. More plates mean more plate surface area. And that means more power – twice as much as conventional batteries.

## Packed with more power

Like many popular spiral-wound batteries, ODYSSEY Extreme Series batteries employ dry cell Absorbed Glass Mat (AGM) technology to contain acid, allowing the battery to be installed even on its side. But the densely packed flat plates in an ODYSSEY Extreme Series battery avoid the “dead space” between cylinders in a “six pack” design. The result is 15% more plate surface area — and that translates to more power.



## Unused battery space

**ODYSSEY® Extreme Series™ batteries vs. spiral-wound designs: 15% more plate surface area!**

**Optional height adapter** may be used on 34-PC1500 models for installations where a group 24 or group 27 is required. Snap the adapter securely into place on the bottom of the 34-PC1500 battery. In some installations, the 34-PC1500 model with this adapter may be used to replace a group 24F or 27F depending on required cable length.



†PC370, PC950 and PC1100 are engine start only. No cycling.

# RUN STRONGER LONGER

**Robust Intercell Connections**  
resist vibration and eliminate internal sparking

**Tin Alloy Coated Brass Terminals**  
ensure corrosion-free cable connections\*



**Compressed AGM Plate Separators**  
help enable extreme vibration resistance

**99.99% Pure Lead Plates**  
are extremely thin, so more of them fit inside for more power

\*Some models excluded. See table for details.

## ODYSSEY® EXTREME SERIES™ BATTERY TECHNOLOGY COMPARISON

	ODYSSEY® EXTREME SERIES™ BATTERIES	CONVENTIONAL BATTERIES
<b>DESIGN LIFE</b>	8-12 years (Float) @ 77°F (25°C)	5 years
<b>SERVICE LIFE</b>	3 to 10 years	1 to 5 years
<b>ELECTROLYTE</b>	Drycell (“starved electrolyte”) no external leakage or corrosion	Most are acid flooded (causing acid burns and spills); some wet sealed or “gelled”
<b>STORAGE LIFE</b>	2 years before needing charge @ 77°F (25°C)	6-12 weeks before needing charge
<b>SHIPPING</b>	Air transportable; US Department of Transportation classified non-spillable (less expensive)	Ground transport; classified as hazardous material (more expensive)
<b>END OF LIFE</b>	Battery slowly loses power at end of life; no catastrophic failure	Immediate and catastrophic loss of power (can leave you stranded)

# ***SUPERIOR STARTING POWER AND VIBRATION RESISTANCE***

**The ODYSSEY® Extreme Series™ battery's incredible combination of power and endurance makes these batteries ideal for just about anything, just about anywhere.**



## **Emergency Response**

ODYSSEY® Extreme Series™ batteries are always on call with maintenance-free starting power plus massive deep cycle reserve power for on-board accessories.

- Police cruisers
- Fire trucks
- Ambulances



## **Heavy Duty/Commercial**

Superior cranking power and deep cycle ability mean ODYSSEY Extreme Series batteries get the job done.

- Farm, lawn and garden equipment
- Tractor trailers
- Earth-moving/  
construction equipment



## **4X4 & Off-Road**

Rugged construction and non-spillable, dry cell design ensure extreme shock and vibration resistance for the toughest off-road applications.

- SUVs
- Light trucks
- Off-road vehicles



## **Everyday Vehicles**

The electronics in today's vehicles require heavy power. ODYSSEY Extreme Series batteries deliver it while providing reliable starting for up to 3X as long as conventional batteries.

- Luxury and sport sedans
- SUVs and light trucks
- Vans, minivans and taxis

# EXTREME POWER AND ENDURANCE FOR EVEN MORE APPLICATIONS



## Classic & Antique Cars

The deep cycle reserve power of ODYSSEY® Extreme Series™ batteries ensures that classic and antique cars will start reliably, even after two years of sitting idle.

- Antique vehicles
- Classic trucks
- Muscle cars



## Motorcycles Extreme Series & Powersports

The ODYSSEY Extreme Series battery delivers the power and durability that powersports vehicles demand. Rugged construction and non-spillable, dry cell design provides extreme shock and vibration resistance.

- Motorcycles and ATVs
- Personal watercraft
- Snowmobiles
- Ultralight and Gyrocopter™ aircraft



## High Performance & Modified Vehicles

From starting high-compression engines to powering high-intensity discharge lights, ODYSSEY Extreme Series batteries can handle any upgrade, and can be mounted in almost any position.

- Tuner cars
- Race cars
- Dragsters

## Sound and Video Packages

ODYSSEY Extreme Series batteries provide the power and mounting flexibility that today's high-wattage, in-car sound and video systems demand.

- Audio systems
- Video systems
- Auxiliary amplifiers



# ODYSSEY®

Trolling Thunder®/Marine Dual Purpose

## Extreme

SERIES™

### Big power on the water

Starting power or deep cycle power. Traditionally, boaters have been forced to choose between them. Now, with the ODYSSEY® Extreme Series™ Trolling Thunder®/Marine Dual Purpose battery they can have it all — a marine battery that delivers robust starting power when needed, yet withstands deep and frequent depths of discharge (DOD) without significant power loss.

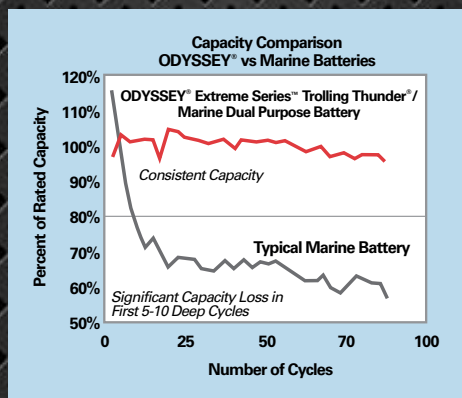
The ODYSSEY Extreme Series Trolling Thunder/Marine Dual Purpose battery has both massive starting power and amazing deep cycling capability — up to 400 cycles at 80% depth of discharge when charged appropriately.

With twice the overall power and three times the life of conventional marine batteries, the ODYSSEY Extreme Series battery is ideal for trolling, starting, and for powering the many on-board electronic accessories common in today's recreational boats.



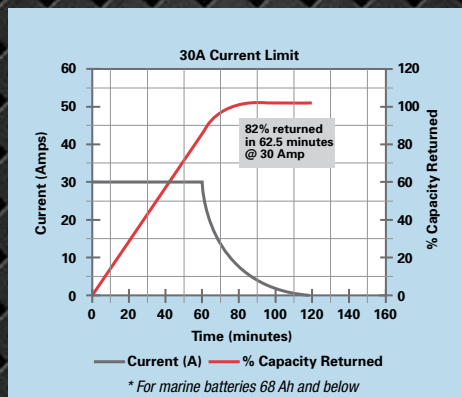
*Endorsed by legendary bass fisherman, author, and TV host, Shaw Grigsby, inducted into Legends of the Outdoors™ Hall of Fame, 2004.*

*The ODYSSEY Extreme Series also includes a full range of batteries ideal for marine powersports applications.*



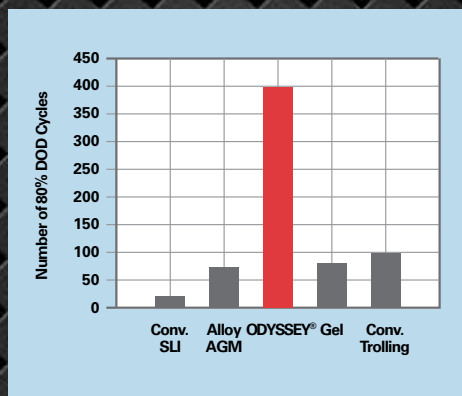
### Consistent Power

ODYSSEY® Extreme Series™ batteries maintain consistently high voltage over a long cycle life.



### Fast Recovery

ODYSSEY® Extreme Series™ batteries recharge faster and more fully than conventional marine batteries.



### Long Cycle Life

ODYSSEY® Extreme Series™ batteries routinely deliver up to 400 deep cycle (80%) discharges.

# ODYSSEY<sup>®</sup>

## Extreme

SERIES™

**Longer warranty** – Limited 2-, 3- and 4-year full replacement warranty.

**Longer service life** – 3-10 years of service life.

**Longer cycle life** – 70% longer cycle life and up to 400 cycles at 80% depth of discharge.<sup>†</sup>

**Longer shelf life** – Storable with nothing connected to the terminals for up to 2 years, or down to 12.00V, whichever comes first.

**Faster recharge** – 100% recharge in 4-6 hours – the highest efficiency of any sealed lead battery.

**More flexible mounting** – Non-spillable design allows mounting on any side, in any position (except inverted).

**Vibration resistance** – Protection against the high impact shocks and vibration that often cause premature battery failure.

**Extreme temperature tolerance** – Operating temperatures from -40°F (-40°C) to 176°F (80°C).\*

**Maintenance free** – No need to add water, ever!

**Improved safety** – Classified “non-spillable” by US Department of Transportation – no acid spills and no escaping gases!

Model	Voltage	PHCA** (5 sec)	CCA*	HCA	MCA	Nominal Capacity		Reserve Capacity Minutes	Length inches (mm)	Width inches (mm)	Height inches (mm)	Weight lbs (kg)	Terminal	Torque Spines in-lbs (Nm max)	Internal Resistance (mΩ)	Short Circuit Current
						(20 Hr Rate-Ah)	(10 Hr Rate-Ah)									
PC310	12	310	100	200	155	8	7	9	5.43 (138.0)	3.39 (86.0)	3.98 (101.0)	5.9 (2.7)	M4 Receptacle	8.9 (1.0)	27.1	455A
PC370	12	425	200	315	270	15	14	25	7.9 (200.0)	3.0 (77.0)	5.5 (140.0)	12.5 (5.7)	M6 Stud	35 (3.9)	13.5	891A
PC535	12	535	200	300	265	14	13	21	6.70 (170.2)	3.90 (99.1)	6.24 (158.5)	12.0 (5.4)	M6 Receptacle	40 (4.5)	8	1000A
PC545	12	460	150	280	220	13	12	18	7.00 (177.8)	3.38 (85.9)	5.17 (131.3)	11.4 (5.2)	M6 Receptacle	50 (5.6)	10	1200A
PC625	12	530	200	420	340	18	17	27	6.70 (170.2)	3.90 (99.1)	6.95 (176.5)	13.2 (6.0)	M6 Receptacle	40 (4.5)	7	1800A
PC680	12	520	170	350	280	16	16	24	7.27 (184.7)	3.11 (79.0)	7.55 (191.8)	15.4 (7.0)	M6 Receptacle <sup>†</sup> or SAE 3/8" Receptacle	50 (5.6)	7	1800A
PC925	12	900	330	610	480	28	27	48	6.64 (168.7)	7.05 (179.1)	5.83 (148.1)	26.0 (11.8)	M6 Receptacle <sup>†</sup> or SAE 3/8" Receptacle	60 (6.8)	5	2400A
PC950	12	950	400	600	500	34	32	60	9.8 (250.0)	3.8 (97.0)	6.1 (156.0)	20.0 (9.0)	M6 Stud	35 (3.9)	7.1	1700A
PC1100	12	1100	500	800	650	45	43	87	9.8 (250.0)	3.8 (97.0)	8.1 (206.0)	27.5 (12.5)	M6 Stud	35 (3.9)	5.1	2450A
PC1200	12	1200	540	860	725	42	40	78	7.87 (199.9)	6.66 (169.2)	7.60 (193.0)	38.2 (17.4)	M6 Receptacle <sup>†</sup> or SAE 3/8" Receptacle	60 (6.8)	4.5	2600A
PC1220	12	1220	680	960	860	70	64.8	135	10.94 (278.0)	6.88 (175.0)	7.48 (190.0)	45.6 (20.7)	DIN Lead Post	N/A	5.7	2200A
75-PC1230	12	1230	760	1050	815	55	50	110	9.46 (240.3)	7.08 (179.8)	7.22 (183.4)	45.5 (20.6)	SIDE 3/8" Receptacle	60 (6.8)	2.5	3100A
75/86-PC1230	12	1230	760	1050	815	55	50	110	9.46 (240.3)	7.08 (179.8)	7.92 (201.2)	45.5 (20.6)	TOP SAE SIDE 3/8" Receptacle	60 (6.8)	2.5	3100A
PC1350	12	1350	770	1080	960	95	88.5	195	13.90 (353.0)	6.88 (175.0)	7.48 (190.0)	60.4 (27.4)	DIN Lead Post	N/A	4.2	2900A
25-PC1400	12	1400	850	1150	950	65	55	130	9.46 (240.3)	6.84 (173.7)	8.69 (220.7)	50.0 (22.7)	SAE	60 (6.8)	2.5	3100A
35-PC1400	12	1400	850	1150	950	65	55	130	9.46 (240.3)	6.84 (173.7)	8.69 (220.7)	50.0 (22.7)	SAE	60 (6.8)	2.5	3100A
34-PC1500	12	1500	850	1250	1050	68	62	135	10.85 (275.6)	6.76 (171.7)	7.88 (200.2)	49.5 (22.4)	SAE	60 (6.8)	2.5	3100A
34R-PC1500	12	1500	850	1250	1050	68	62	135	10.85 (275.6)	6.76 (171.7)	7.88 (200.2)	49.5 (22.4)	SAE	60 (6.8)	2.5	3100A
34M-PC1500	12	1500	850	1250	1050	68	62	135	10.85 (275.6)	6.76 (171.7)	7.95 (201.9)	49.5 (22.4)	SAE and 3/8" Stud (Pos.), 5/16" Stud (Neg.)	60 (6.8)	2.5	3100A
34/78-PC1500	12	1500	850	1250	1050	68	62	135	10.85 (275.6)	7.08 (179.8)	7.88 (200.2)	49.5 (22.4)	TOP SAE SIDE 3/8" Receptacle	60 (6.8)	2.5	3100A
78-PC1500	12	1500	850	1250	1050	68	62	135	10.85 (275.6)	7.08 (179.8)	7.34 (186.4)	49.5 (22.4)	SIDE 3/8" Receptacle	60 (6.8)	2.5	3100A
PC1700	12	1550	810	1325	1175	68	65	142	13.03 (331.0)	6.63 (168.4)	7.78 (197.6)	60.9 (27.6)	M6 Receptacle <sup>†</sup> or SAE 3/8" Receptacle	60 (6.8)	3.5	3500A
65-PC1750	12	1750	950	1350	1070	74	65	145	11.83 (300.5)	7.20 (182.9)	7.50 (190.5)	58.0 (26.3)	SAE	60 (6.8)	2.0	5000A
PC1800-FT	12	1800	1300	1600	1450	214	190	475	22.75 (577.9)	4.9 (125.0)	12.44 (316.0)	132.3 (60.0)	3/8" Stud	80 (9.0)	3.3	3800A
31-PC2150	12	2150	1150	1545	1370	100	92	205	13.06 (331.7)	6.89 (175.0)	9.59 (243.6)	77.8 (35.3)	3/8" Stud or SAE <sup>†</sup>	150-220 (16.9-22.6)	2.2	5000A
31M-PC2150	12	2150	1150	1545	1370	100	92	205	13.00 (330.2)	6.80 (172.7)	9.39 (238.5)	77.8 (35.3)	SAE and 3/8" Stud (Pos.), 5/16" Stud (Neg.)	150-220 (16.9-22.6)	2.2	5000A
PC2250	12	2250	1225	1730	1550	126	114	240	11.26 (286.0)	10.59 (269.0)	9.17 (233.0)	86.0 (39.0)	SAE Terminal and 3/8" Stud	100 (11.0) For 3/8" Stud Only	2.1	5000A

\*Cold Start Performance S.A.E J537 JUNE 82 \*\*Pulse Current † Can be fitted with brass automotive terminal  
 Optional metal jackets available on PC545, PC680, PC925, PC1200, PC1700 and 31-PC2150  
 Operating Temperature Range = PC310 and PC1800-FT: -40°F (-40°C) to 122°F (50°C), PC370, PC950 and PC1100:  
 -40°F (-40°C) to 122°F (50°C), PC535 and PC625: -40°F (-40°C) to 113°F (45°C), PC545, PC680, PC925, PC1200 and PC1700  
 without metal jacket: -40°F (-40°C) to 113°F (45°C), PC545, PC680, PC925, PC1200 and PC1700 with metal jacket:  
 -40°F (-40°C) to 176°F (80°C), PC1220, PC1350 and PC2250: -40°F (-40°C) to 104°F (40°C), All other models: -40°F (-40°C)  
 to 176°F (80°C)

\*Not all models are capable of 176°F (80°C)

†PC370, PC950 and PC1100 are engine start only. No cycling.

### WARNING:

Enersys Energy Products Inc. ("Manufacturer") warrants its ODYSSEY<sup>®</sup> Extreme Series™ batteries (hereafter referred to as "Battery") to be free of defects in material and workmanship for the following Applicable Warranty Periods:

- 2 years for Auxiliary Power (APU) and other non engine start cycling applications.
- 2 years for power sports applications.
- 3 years for commercial, industrial, marine and automotive applications in non BCI sizes.
- 4 years for an engine starting application for PC1220, PC1350, PC2250 and all BCI sizes.

The warranty does not cover a Battery reaching its normal end of life which may occur prior to the warranty periods stated above. Depending on the application a Battery can reach its normal end of life before the end of the warranty period.

A Battery can deliver only a fixed number of usable amp-hours over its lifetime and is considered to have reached its normal end of life if the application uses up all of these amp-hours, regardless of the time the Battery has been in service. Therefore Manufacturer reserves the right to deny a warranty claim if it determines the Battery to be at its normal end of life, even if the claim is lodged within the applicable warranty period.

The Applicable Warranty Period begins from the date of purchase with original receipt, or, if no receipt is available, from Manufacturer's shipping date as stated on the battery. Batteries determined to meet the conditions of this warranty will be replaced free of charge if, at the sole discretion of Manufacturer, adjustment is necessary due to defect in material or workmanship. Batteries for warranty replacement consideration are to be returned to the original supplying distributor/dealer. If not feasible, other ODYSSEY<sup>®</sup> Extreme Series™ distributors/dealers can be approached but a warranty processing fee may be applied. This warranty may vary from country to country; contact your authorized ODYSSEY<sup>®</sup> Battery wholesaler or dealer for the applicable warranty.

Batteries replaced under the warranty provisions will be shipped with a yellow replacement warranty sticker and carry only the remainder of the original Applicable Warranty Period.

### GENERAL PROVISIONS:

A. Manufacturer has no obligation under the limited warranty herein in the event the Battery is damaged or destroyed as a result of one for more of the following:

- Willful abuse, misuse, physical damage, neglect or if the top decorative cover has been removed.
- Natural forces such as wind, lightning, hail; damage due to fire, collision, explosion, vandalism, theft, penetration or opening of the Battery case in any manner.
- Overcharging, undercharging, charging or installing in reverse polarity, improper maintenance, allowing the Battery to be deeply discharged via a parasitic load or mishandling of the Battery such as but not limited to using the terminals for lifting or carrying the Battery. Trickle chargers that do not have a regulated trickle charge voltage between 13.5V and 13.8V (no lower than 13.5V and no higher than 13.8V) will cause early failure of the Battery. Use of such chargers with the Battery will also void the Battery's warranty. For applications where an alternator is present, the alternator must deliver between 14.0V and 14.7V when measured at the Battery's terminals. Alternators that do not have a regulated charge between 14.0V and 14.7V (no lower than 14.0V and no higher than 14.7V) will cause early failure of the Battery. Use of such alternators with the Battery will also void the Battery's warranty.
- Failure to properly install the Battery or lack of metal jacket for high temperature or vibration applications.
- Repair or attempted repair of the Battery by anyone other than an authorized Manufacturer's representative shall void this warranty.
- Normal or accelerated deterioration in the electrical qualities due to operating or application conditions.
- If the Battery is used for an application that requires higher cranking power or a greater reserve rating than the Battery is designed to deliver, or the Battery capacity is less than the Battery capacity specified by the vehicle manufacturer, or the Battery is otherwise used in applications for which it was not designed.
- Prolonged storage of vehicles with fuel injection computers, alarms, GPS and other electrical devices that require continuous battery power to support active memories; this power drain must be offset with a maintenance-float charger, periodic charging or disconnecting the Battery to prevent irreversible damage. A Battery with an open circuit voltage (OCV) of equal to or less than 10.0V will be deemed as over discharged and void warranty due to misuse and/or neglect.

WARNING - DO NOT USE ANY TYPE OF OIL, ORGANIC SOLVENT, ALCOHOL, DETERGENT, STRONG ACIDS, STRONG ALKALIS, PETROLEUM-BASED SOLVENT OR AMMONIA SOLUTION TO CLEAN THE BATTERY COVERS AND BATTERY TOPS. THESE MATERIALS MAY CAUSE PERMANENT DAMAGE TO THE BATTERY COVERS BATTERY TOPS AND WILL VOID THE WARRANTY.

B. To obtain warranty service:

1. Return the Battery to the original supplying wholesaler or dealer.
2. If the Battery is determined by Manufacturer, in its sole discretion, to be defective for material or workmanship under terms of this limited warranty, it will be replaced.
3. Manufacturer's acceptance of any items shipped to Manufacturer shall not be deemed an admission that the items so shipped are defective. Any items shipped back to Manufacturer, shall in Manufacturer's sole discretion, become Manufacturer's property.

THIS LIMITED WARRANTY IS IN LIEU OF, AND MANUFACTURER DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, STATUTORY, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. MANUFACTURER'S EXCLUSIVE LIABILITY FOR BREACH OF WARRANTY SHALL BE TO REPLACE THE BATTERY WITHIN THE EFFECTIVE WARRANTY PERIOD. IN NO EVENT SHALL MANUFACTURER BE LIABLE FOR ANY LOSS OR DAMAGES OF ANY OTHER KIND, WHETHER DIRECT, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, SPECIAL OR OTHERWISE, NOR SHALL MANUFACTURER BE LIABLE FOR ANY REMOVAL OR INSTALLATION EXPENSE, OR THE LOSS OF TIME OR PROFITS.

Some countries and/or states do not allow limitation on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, which may vary from country to country and/or state to state. This warranty shall be governed by and interpreted in accordance with the laws of the Commonwealth of Pennsylvania without regard to Pennsylvania conflicts of laws rules. The United Nations Convention on Contracts for the International Sale of Goods signed in Vienna in 1980 shall not apply to this warranty. This warranty is understood to be the exclusive agreement between the parties relating to the subject matter hereof. No employee or representative of Manufacturer is authorized to make any warranty in addition to those made in this agreement.