

ENGINEERED WITH THIN PLATE PURE LEAD (TPPL) TECHNOLOGY

# STARTS STRONGER. STAYS STRONGER.



2X the overall power and 3X the life

of conventional marine batteries



Trolling Thunder /Marine Dual Purpose

Extreme



www.odysseybattery.com

## UNCOMPROMISING POWER ON THE WATER

Boat owners have traditionally had to make a choice between starting power or deep cycle power when replacing a marine battery. But most boaters want both — a marine battery that delivers robust starting power when they need it, yet also withstands deep and frequent depths of discharge (DOD) without significant power loss. Now they can have it all.



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 Trolling Thunder/Marine Dual Purpose battery is ideal for trolling, starting, and for powering the many on-board electronic accessories common in today's boats and recreational vehicles.

#### ODYSSEY® Extreme Series™ Trolling Thunder/ Marine Dual Purpose batteries for powersports

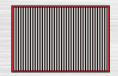
The ODYSSEY Extreme Series also includes a full range of batteries ideal for marine powersports applications. These batteries incorporate the same rugged design and deep cycling capability as ODYSSEY Extreme Series Trolling Thunder/ Marine Dual Purpose batteries.

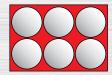
This allows them to withstand the constant pounding and frequent discharges common in water

powersports applications.

## ODYSSEY® Extreme Series™ batteries outperform spiral-wound

Compared to spiral-wound batteries of equal size, ODYSSEY Extreme Series batteries pack 15% more plate surface area into the case. Avoiding the "dead space" between cylinders in "sixpack" designs means ODYSSEY Extreme Series batteries deliver more power and 40% more reserve capacity.





### Unused battery space

ODYSSEY® Extreme Series™ Trolling Thunder®/ Marine Dual Purpose batteries vs. spiral-wound designs: 15% more plate surface area!

Incredible deep cycling capacity and massivecranking power — all in one revolutionary battery.



ODYSSEY

Trolling Thunder/Mentine Duel Purpose



Legends of the Outdoors™

Hall of Fame, 2004.

# DESIGNED FOR EXTREME POWER AND ENDURANCE



#### **Longer service life**

Forget replacing batteries every year. With 3-10 years of service life, ODYSSEY® Extreme Series™ Trolling Thunder®/Marine Dual Purpose batteries save consumers time, money, and aggravation.

#### **Longer cycle life**

70% longer cycle life compared to conventional deep cycle batteries — up to 400 cycles at 80% depth of discharge — high stable voltage for longer periods of time.

#### **Longer shelf life**

Can be stored on open circuit (nothing connected to the terminals) without the need for recharging up to 2 years or 12.00V, whichever occurs first.

#### **Faster recharge**

The highest recharge efficiency of any sealed lead battery on the market — capable of 100% recharge in 4 - 6 hours.

#### **Mounting flexibility**

Non-spillable design — can be mounted on any side in any position except inverted. Takes up less space in the boat than competitors.

#### **Vibration resistance**

Design protects against high impact shock and mechanical vibration — a common cause of premature battery failure.

#### **Extreme temperature tolerant**

Operating temperatures from -40°F (-40°C) to 176°F (80°C) for the 34M-PC1500 and 31M-PC2150. No need to winterize this unit — leave it in the boat!

#### **Totally maintenance free**

No need to add water, ever!

#### **Improved safety**

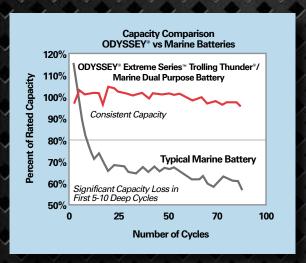
US Department of Transportation classified as a 'non-spillable' battery. No acid spills, no escaping gases. Drycell design with resealable venting system.

#### **Superior to spirals**

Compressed flat plates eliminate wasted space — 15% more plate surface area and up to 40% more reserve capacity than popular "six-pack" AGM batteries.

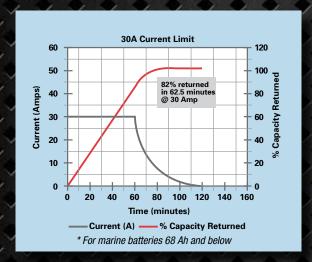
#### **Better warranty**

Limited 3- and 4-year full replacement warranty — not pro rata.



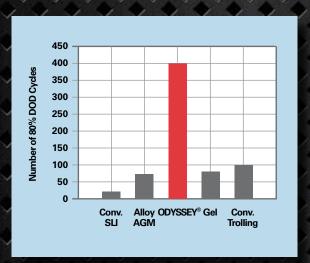
### Consistent Power

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.



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

#### **ODYSSEY® EXTREME SERIES** $^{\mathsf{TM}}$ **BATTERY TECHNOLOGY COMPARISON**

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

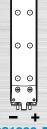
### TERMINAL LAYOUTS

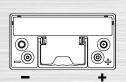
Drawing sizes are for terminal position reference only; diagrams are not proportionate to each other.

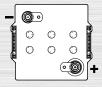












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34M-PC1500

PC1800-FT 31M-PC2150

PC2250

	MODEL	Voltage	PHCA** (5 sec)	CCA*	НСА	MCA	(20 Hr	Capacity (10 Hr Rate-Ah)	Reserve Capacity Minutes	Length inches (mm)	Width inches (mm)	Height inches (mm)	Weight Ibs (kg)	Terminal	Torque Specs in-Ibs (Nm max)	Internal Resistance (mΩ)	Short Circuit Current
PC625		12	530	200	420	340	18	17	27	6.70 (170.2)	3.90 (99.1)	6.89 (175.0)	13.2 (6.0)	M6 Receptacle	40 (4.5)	7	1800A
PC925		12	900	330	610	480	28	27	48	6.64 (168.6)	7.05 (179.0)	5.04 (128.0)	26.0 (11.8)	M6 Receptacle <sup>†</sup> or SAE 3/8" Receptacle	60 (6.8)	5	2400A
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
PC1800-FT	1	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
31M-PC2150		12	2150	1150	1545	1370	100	92	205	13.00 (330.2)	6.80 (172.7)	9.41 (239.0)	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

<sup>\*</sup> Cold Start Performance S.A.E J537 JUNE 82

Constant voltage portable charger parameters:

Standby, per 12V battery	13.5-13.8V no current limit required
Cyclic, per 12V battery (16-hour recharge)	14.4-14.8V no current limit required
Typical deep-cycle life at 77°F (25°C) at a 5-hour rate	400 cycles at 80% DOD

Typical service life at 77°F (25°C) Medium to heavy duty usage – 3+ years Light duty usage - 5+ years

<sup>\*</sup> Cold Start Performance S.A.E J537 JUNE 82
\*\*Pulse Current
Operating temperature range:
-40°F (-40°C) to 113°F (45°C) for PC625 and PC925
-40°F (-40°C) to 176°F (80°C) for 34M-PC1500 and 31M-PC2150
-22°F (-30°C) to 104°F (40°C) for PC2250
-40°F (-40°C) to 122°F (50°C) for PC1800-FT

#### **About EnerSys®**

EnerSys® 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.

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www.odysseybattery.com



#### WARRANTY:

EnerSys Energy Products Inc. ("Manufacturer") warrants its ODYSSEY® 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® 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® 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 8.0V 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.
- 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.

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