

# ODYSSEY<sup>®</sup>

THE EXTREME BATTERY

## Powersports

A guide to the industry's best starting and deep cycle battery



**Twice the overall power  
and three times the  
life of conventional  
batteries. Up to 400  
cycles at 80% depth  
of discharge!**



**EnerSys**  
Power/Full Solutions

# Designed to change what you can expect from a powersports battery

Of course powersport vehicles need a powerful battery. But they also need one built to take the constant pounding that comes with the territory, whether that territory is on land, sea, or snow. The ODYSSEY® battery can handle it.

Featuring rugged construction and packed tightly with pure lead plates, the non-spillable AGM design ODYSSEY battery protects against the shock and vibration that can quickly destroy other batteries. And the pure lead plates mean more power—twice the overall power and three times the life of conventional batteries—up to 400 cycles at 80% depth of discharge!

The ODYSSEY battery is the ideal choice for a complete range of powersports applications:

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

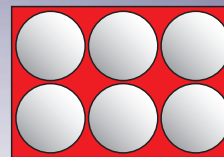
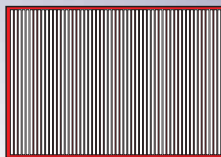


## Construction

- Pure virgin lead plates for maximum surface area, optimized recycling
- AGM (absorbed glass mat) design eliminates acid spills
- High conductivity, corrosion-resistant tin-plated brass terminals
- High integrity terminal seal
- Sealed design—gases recycled internally during operation or charging
- Safety relief valve per cell
- Robust intercell connections prevent vibration damage

## ODYSSEY® batteries beat spiral-wound

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



■ Unused battery space

## ODYSSEY® battery technology comparison

	ODYSSEY® BATTERIES	CONVENTIONAL BATTERIES
DESIGN LIFE	8-12 years (Float) @ 25° C (77° F)	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 @ 25° C (77° F)	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)



## Better warranty

Limited 2-year full replacement warranty — not pro rata.

## Longer service life

With 3-10 years of service life, ODYSSEY® 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.

## 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°C (-40°F) to 45°C (113°F) for models without a metal jacket and from -40°C (-40°F) to 80°C (176°F) for models with a metal jacket.

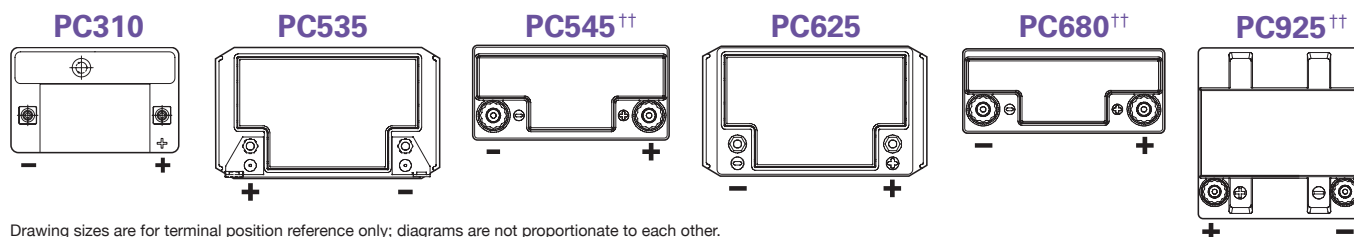
## Totally maintenance free

No need to add water, ever! Drycell design with resealable venting system.

## Improved safety

US Department of Transportation classified as a 'non-spillable' battery. No acid spills, no escaping gases.

## Terminal layouts



Drawing sizes are for terminal position reference only; diagrams are not proportionate to each other.  
†† Optional Metal Jacket (MJ)

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 Specs in-lbs (Nm max)	Internal Resistance (mΩ)	Short Circuit Current
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
PC535	12	535	200	300	265	14	13	21	6.70 (170.2)	3.90 (99.1)	6.18 (157.0)	12.0 (5.4)	M6 Stud	40 (4.5)	8	1000A
PC545	12	460	150	300	240	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	440	350	18	17	27	6.70 (170.2)	3.90 (99.1)	6.89 (175.0)	13.2 (6.0)	M6 Stud	40 (4.5)	7	1800A
PC680	12	520	170	370	300	16	16	24	7.15 (181.5)	3.00 (76.3)	6.65 (167.8)	15.4 (7.0)	M6 Receptacle† or SAE 3/8" Receptacle	50 (5.6)	7	1800A
PC925	12	900	330	625	500	28	27	52	6.64 (168.6)	7.05 (179.0)	5.04 (128.0)	26.0 (11.8)	M6 Receptacle† or SAE 3/8" Receptacle	60 (6.8)	5	2400A

\*Cold Start Performance S.A.E J537 JUNE 82    \*\*Pulse Current  
† Can be fitted with brass automotive terminal.  
Operating temperature range:  
-40°C (-40°F) to 45°C (113°F) without metal jacket  
-40°C (-40°F) to -80°C (176°F) with metal jacket  
PC310: -30°C (-22°F) to 40°C (104°F)

### 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 25°C/77°F at a 5-hour rate	400 cycles at 80% DOD
Typical service life at 25°C/77°F	Medium to heavy duty usage – 3+ years Light duty usage – 6+ years

## About EnerSys®

EnerSys® is a global leader in stored energy solutions for automotive, military, and industrial applications. With manufacturing facilities in 17 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.



### EnerSys

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#### WARRANTY:

EnerSys Energy Products Inc. ("Manufacturer") warrants its ODYSSEY® 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® 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 or 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.
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.