# THE BATTERY THAT GOES TO EXTREMES

Powered by EnerSys®
Power Full Solutions


ODYSSEY®
THE EXTREME BATTERY

# EXTREME POWER.

**Phenomenal starting power and massive deep cycle reserve power in one battery!**

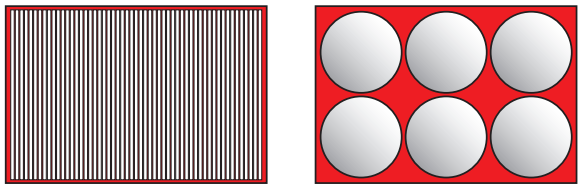
Some batteries provide enormous cranking power. Others, deep cycle reserve power. The revolutionary ODYSSEY® battery is designed to do both.

How is this possible? The answer begins with flat plates made of 99.99% pure virgin lead - not lead alloy. Pure lead plates can be made thinner, so we can fit more of them in the battery. More ODYSSEY battery plates mean more plate surface area. And that means more power – twice as much as conventional batteries.

In fact, ODYSSEY batteries are capable of providing engine cranking pulses in excess of 2250 amps for 5 seconds – double to triple that of equally sized conventional batteries, even at very low temperatures. And they can handle 400 charge-discharge cycles to 80% depth of discharge.

This extreme combination of power and performance makes ODYSSEY batteries perfect for a range of applications, including automotive/LTV, marine, commercial, and powersports – see the examples inside.

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



**Unused battery space**

Like many popular spiral-wound batteries, ODYSSEY batteries employ dry cell AGM technology to contain acid, allowing the battery to be installed even on its side. But the densely packed flat plates in an ODYSSEY 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!


ODYSSEY®
THE EXTREME BATTERY

**www.odysseybattery.com**

# INDESTRUCTIBILITY.

**Designed and built to last up to 3 times as long.**
Thanks to rugged construction and AGM (Absorbed Glass Mat) design, ODYSSEY® batteries have an 8-12 year design life and a 3-10 year service life. Welded intercell connections enable it to withstand extreme vibration, and AGM design holds acid in place to prevent spills, even when installed on its side. And unlike conventional batteries, ODYSSEY batteries can be stored for up to 2 years and still be returned to full power.*

### Pure Lead Plates
Constructed from 99.99% pure virgin lead, ODYSSEY battery plates are extremely thin, so more of them can fit into the battery. More lead plates equals

### Tin Alloy Coated Brass Terminals
Brass terminals coated with a high-quality tin alloy ensure secure, corrosion-free cable connections.♦


### Compressed AGM Plate Separators
Before being inserted into the case, the Absorbed Glass Mat plate separators are compressed for extreme vibration resistance.

### Robust Intercell Connections
Built to stringent specifications, cell connectors are casted to the plates, and bonded to resist vibration and eliminate internal sparking.

### Available Metal Case
Selected ODYSSEY batteries are available with metal casing for high heat applications.


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.

### Ready out of the box
ODYSSEY batteries are shipped fully charged. If the ODYSSEY battery's voltage is 12.65V or greater, simply install the battery in your vehicle and you are ready to go! If below 12.65V, boost charge following the instructions in the ODYSSEY battery Owner's Manual and/or Technical Manual. Putting a boost on the battery will not damage it, even if its voltage reads higher than 12.65V.

* At 25°C (77°F). Storage times will be even longer at lower temperatures.
♦ PC1220 and PC1350 excluded. See table for details.

# VERSATILITY AND FLEX


### Emergency Response

The ODYSSEY® battery protects, serves and saves with maintenance-free starting power plus massive deep cycle reserve power for on-board accessories.

- Police cruisers
- Fire trucks
- Ambulances

### 4X4 & Off-Road

The ODYSSEY battery's 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

### Heavy Duty/Commercial

The ODYSSEY battery gives truckers, farmers and construction vehicle operators what they need: the superior cranking power and deep cycle ability to get the job done.

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

### Classic & Antique Cars

Classic and restored cars are often kept in storage for months. The ODYSSEY battery's deep cycle reserve power ensures that they'll start reliably, even after two years of sitting idle.

- Muscle cars
- Classic trucks
- Antique vehicles

# XIBILITY.

## Marine

ODYSSEY® Trolling Thunder™/Marine Dual Purpose batteries have enough starting, reserve and deep cycle power for any vessel. Plus, an ODYSSEY battery holds a charge for long periods ensuring quick starts even after long storage periods.

- Pleasure cruisers
- Commercial vessels
- Trolling motors

## High Performance & Modified Vehicles

From starting high-compression engines to powering high-intensity discharge lights, the non-spillable ODYSSEY battery can handle any upgrade, and can be mounted in almost any position.

- Tuner cars
- Race cars
- Dragsters

## Sound and Video Packages

The deep cycle, non-spillable ODYSSEY battery offers the extreme power and extreme mounting flexibility that today's high-wattage, in-car sound and video systems demand.

- Audio systems
- Video systems
- Auxiliary amplifiers

## Motorcycles & Powersports

The ODYSSEY battery delivers the power and durability that powersport 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

# ODYSSEY® BATTERY POWER

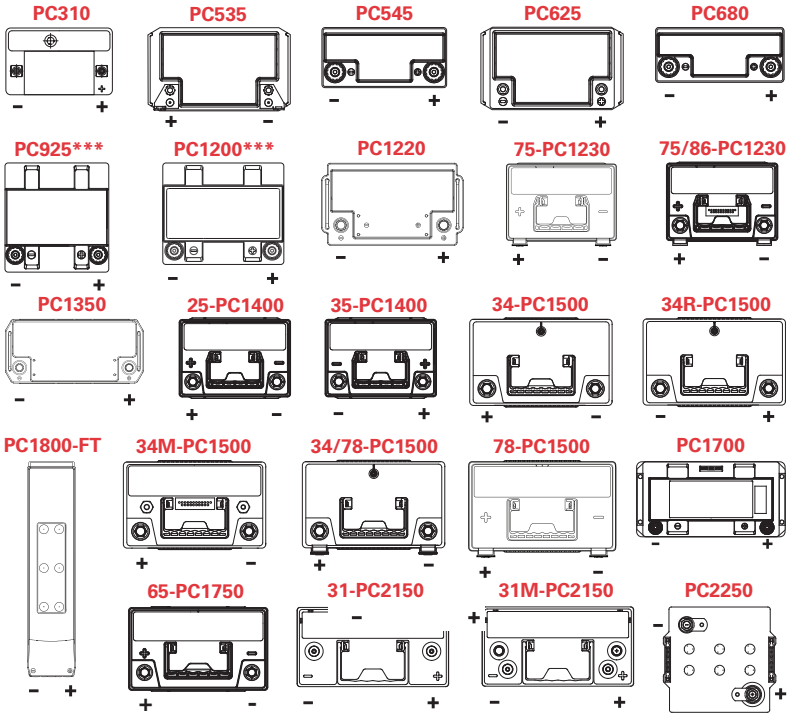
| Model | Voltage | PHCA** (5 sec) | CCA* | HCA | MCA | Nominal Capacity (20 Hr Rate-Ah) | Nominal Capacity (10 Hr Rate-Ah) | Reserve Capacity Minutes | Length inches (mm) | Width inches (mm) | Height inches (mm) | Weight lbs (kg) | Terminal | Torque Specs in-lbs (Nm max) | Internal Resistance (mΩ) | 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 |
| **PC1200** | 12 | 1200 | 540 | 860 | 725 | 42 | 40 | 78 | 7.87 (199.9) | 6.66 (169.1) | 6.80 (172.7) | 38.2 (17.4) | M6 Receptacle† or SAE 3/8" Receptacle | 60 (6.8) | 4.5 | 2600A |
| **PC1220** | 12 | 1220 | 680 | 960 | 860 | 70 | 64.8 | 135 | 11.89 (302.0) | 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 | 100 | 9.46 (240.3) | 6.99 (177.5) | 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 | 100 | 9.46 (240.3) | 6.99 (177.5) | 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 | 14.84 (377.0) | 6.88 (175.0) | 7.48 (190.0) | 60.4 (27.4) | DIN Lead Post | N/A | 4.2 | 2900A |
| **25-PC1400** | 12 | 1400 | 900 | 1150 | 850 | 65 | 55 | 125 | 9.46 (240.3) | 6.84 (173.7) | 8.69 (220.7) | 50.0 (22.7) | SAE | 70 (7.9) | 2.5 | 3100A |
| **35-PC1400** | 12 | 1400 | 900 | 1150 | 850 | 65 | 55 | 125 | 9.46 (240.3) | 6.84 (173.7) | 8.69 (220.7) | 50.0 (22.7) | SAE | 70 (7.9) | 2.5 | 3100A |
| **34-PC1500** | 12 | 1500 | 850 | 1250 | 1050 | 68 | 62 | 135 | 10.85 (275.6) | 6.76 (171.7) | 7.82 (198.6) | 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) | 7.82 (198.6) | 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) | 7.82 (198.6) | 49.5 (22.4) | SAE and 3/8" Stud (Pos.), 5/16" Stud (Neg.) | 70 (7.9) | 2.5 | 3100A |
| **34/78-PC1500** | 12 | 1500 | 850 | 1250 | 1050 | 68 | 62 | 135 | 10.85 (275.6) | 6.99 (177.5) | 7.82 (198.6) | 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) | 6.99 (177.5) | 7.12 (180.8) | 49.5 (22.4) | SIDE 3/8" Receptacle | 60 (6.8) | 2.5 | 3100A |
| **PC1700** | 12 | 1550 | 810 | 1325 | 1175 | 68 | 65 | 142 | 13.02 (330.7) | 6.62 (168.2) | 6.93 (176.0) | 60.9 (27.6) | M6 Receptacle† or SAE 3/8" Receptacle | 60 (6.8) | 3.5 | 3500A |
| **65-PC1750** | 12 | 1750 | 950 | 1350 | 1070 | 74 | 65 | 135 | 11.83 (300.5) | 7.20 (182.9) | 7.43 (188.7) | 58.0 (26.3) | SAE | 70 (7.9) | 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 | 13.00 (330.2) | 6.80 (172.7) | 9.41 (239.0) | 77.8 (35.3) | 3/8" Stud or SAE† | 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) | 9.47 (240.5) | 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°C (-40°F) to 50°C (122°F), PC535 and PC625: -40°C (-40°F) to 45°C (113°F),
PC545, PC680, PC925, PC1200 and PC1700 without metal jacket: -40°C (-40°F) to 45°C (113°F),
PC545, PC680, PC925, PC1200 and PC1700 with metal jacket: -40°C (-40°F) to 80°C (176°F),
PC1220, PC1350 and PC2250: -40°C (-40°F) to 40°C (104°F), All other models: -40°C (-40°F) to 80°C (176°F)

Powered by EnerSys® Power/Full Solutions

# FOR EVERY APPLICATION.

## TERMINAL LAYOUTS




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

## 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) |

**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 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 then 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.

## 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**
P.O. Box 14145
Reading, PA 19612-4145, USA
Tel: +1-610-208-1991
+1-800-538-3627
Fax: +1-610-372-8613


## Regional Sales


**EnerSys Energy Products Inc.**
617 North Ridgeview Drive
Warrensburg, MO 64093-9301, USA
Tel: +1-660-429-2165
Fax: +1-660-429-1758

**EnerSys Australia Pty Ltd.**
54-58 Derby Street
Silverwater, NSW 2128
Australia
Tel: + 61 (0) 2 9739 9999
Fax: + 61 (0) 2 9739 9900


**www.odysseybattery.com**





Publication No: US-ODY-RS-0010 –April 2012 Subject to revisions without prior notice. E.&O.E.