

ODYSSEYTM

THE EXTREME BATTERY

Automotive/LTV

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

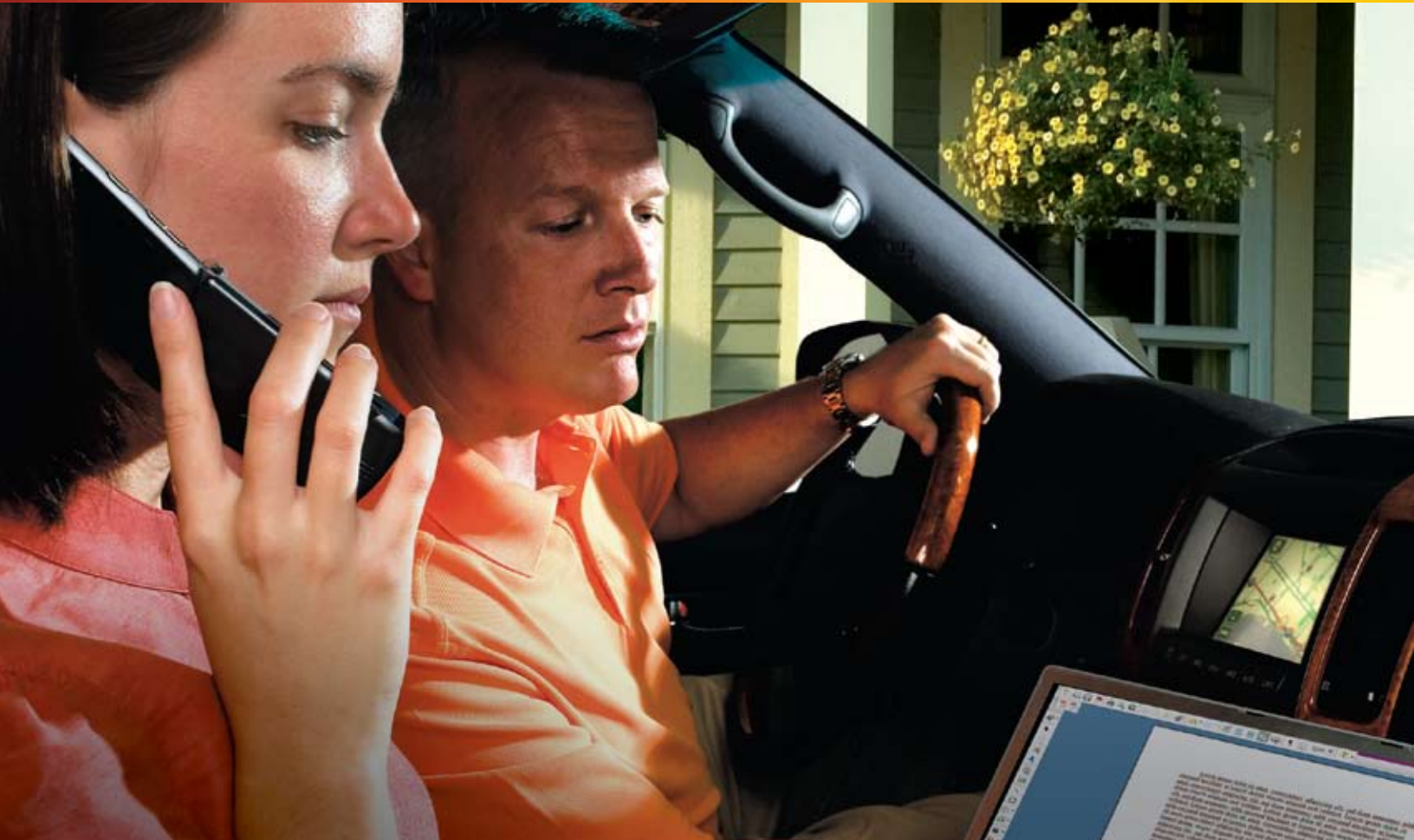


Twice the overall power and three times the life of conventional automotive batteries. Up to 400 cycles at 80% depth of discharge!



EnerSys[®]
Power/Full Solutions

Designed to change what you can expect from an automotive battery



Remember when all a battery had to do was start the car?

Whether for everyday or emergency use, today's vehicles are loaded with more electronics than would have been imaginable just a few years ago. And today's hobbyist vehicles now include more specialties and specialized power demands than ever before. Fortunately, the ODYSSEY™ battery has been designed to keep up with the changes.

Because its plates are made of pure virgin lead (unlike the lead alloy in most batteries), we can pack in more plates. And more plates mean more plate surface area, and much more power — twice the overall power and three times the life of conventional batteries — up to 400 cycles at 80% depth of discharge!

Bottom line? The ODYSSEY battery delivers the massive starting power, rapid recovery, and amazing deep cycling capability that today's vehicles demand.

Better warranty

Limited 3- and 4-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 down to 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 80°C (176°F).

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.

Built for a range of performance



Everyday Vehicles

The electronics in today's vehicles require heavy power. The ODYSSEY™ battery delivers 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



Classic & Antique Cars

Classic and restored cars are often kept in storage for months. With the ODYSSEY battery, they'll start reliably for up to two years (when stored at 25°C (77°F) from a fully charged state).

- Antique vehicles
- Classic trucks
- Replica/kit cars



4X4 & Off-Road

Featuring rugged construction and a non-spillable, dry cell design, ODYSSEY batteries ensure extreme shock and vibration resistance for the toughest off-road applications.

- SUVs
- Light trucks
- Off-road vehicles



High Performance Cars

High-compression, massive horsepower engines demand massive starting power. The superior cranking ODYSSEY battery provides it for much longer than conventional batteries.

- Muscle cars
- Race cars
- Dragsters



Modified Vehicles

From low-riding hydraulics to high-intensity discharge lights, the non-spillable ODYSSEY battery can power any modification, and can be mounted in almost any position.

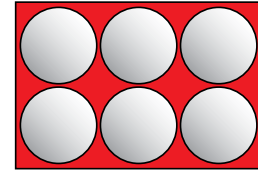
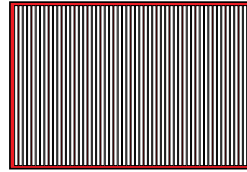
- Tuner cars
- Low riders
- Audio and video systems

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)

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

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

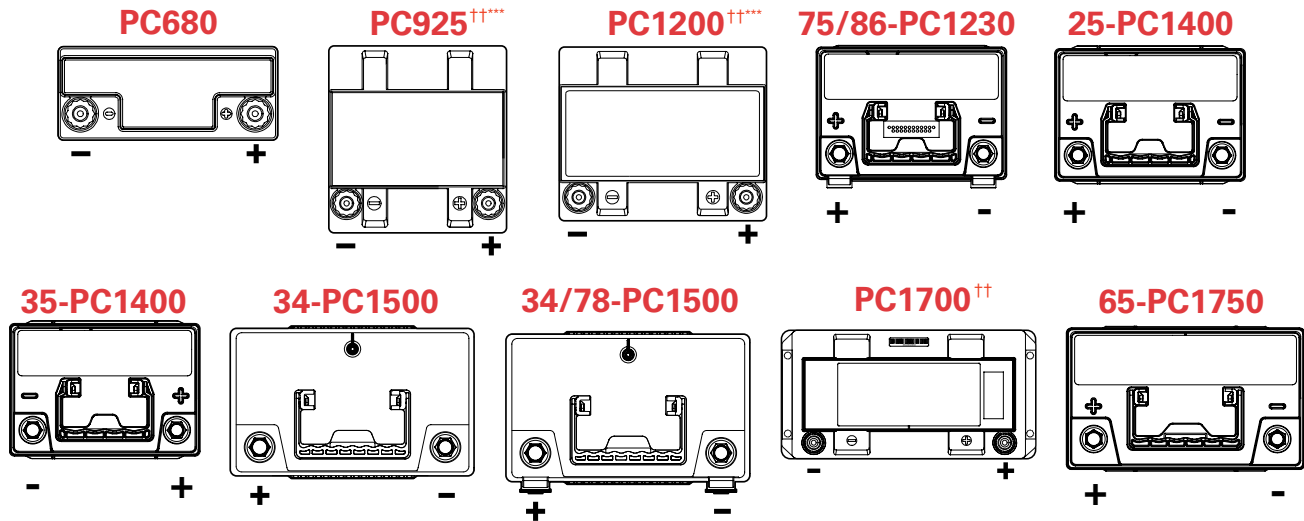


ODYSSEY™ Ultimizer™ Chargers

ODYSSEY batteries are complemented by ULTIMIZER™ Chargers – lightweight and compact 12V chargers featuring a 3-step charge profile for fast, complete and safe charging. Models include 12amp, 25amp, 40amp (3 bank), 50amp (3 bank), and 50amp (single bank).

Optional height adapter may be used on the 34-PC1500 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, a 34-PC1500 with this adapter may be used to replace a group 24F or 27F depending on required cable length.

Terminal layouts



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

†† Optional Metal Jacket (MJ)

††† Optional Reversed Polarity (L)

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
						(20 Hr Rate-Ah)	(10 Hr Rate-Ah)									
PC680	12	680	220	370	300	16	16	24	7.27 (184.7)	3.11 (79.0)	6.67 (169.4)	15.4 (7.0)	M6 Receptacle [†] or SAE 3/8" Receptacle	50 (5.6)	7	1800A
PC925	12	925	380	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	550	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
75/86-PC1230	12	1230	730	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
25-PC1400	12	1400	820	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	820	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	880	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
34/78-PC1500	12	1500	880	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
PC1700	12	1700	875	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	930	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

*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 80°C (176°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 - 5+ 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 earlier of (a) the Applicable Warranty Period or (b) within 400 cycles to 80% depth of discharge, whichever occurs first. The Applicable Warranty Period is two (2) years for power sports applications; three (3) years in automotive, marine, commercial, and industrial applications; and four (4) years in the case of the 75/86-PC1230, 25-PC1400, 35-PC1400, 34-PC1500, 34M-PC1500, 34/78-PC1500, 65-PC1750, 31-PC2150, 31M-PC2150 and PC2250 batteries. The Applicable Warranty Period begins from the date of purchase with original receipt, or, if no receipt is available, from Manufacturer's shipping date. Within the Applicable Warranty Period, the Battery will be replaced free of charge if adjustment is necessary due to defect in material or workmanship (not merely discharged). Simply return the Battery to any authorized ODYSSEY battery dealer with the original receipt for a replacement. This warranty may vary from country to country; contact your authorized ODYSSEY battery wholesaler or dealer for the applicable warranty.

GENERAL PROVISIONS:

Manufacturer has no obligation under the limited warranty set forth above in the event the Battery is damaged or destroyed as a result of one or more of the following:

- Willful abuse or 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.
- Failure to properly install the Battery or lack of metal jacket for high temperature or vibration applications.
- Normal deterioration in the electrical qualities or the acceleration of such deterioration due to conditions that accelerate such deterioration.
- 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.

To obtain warranty service:

1. Return the Battery to any authorized ODYSSEY battery wholesaler or dealer.
2. If the Battery is determined to be defective for material or workmanship under terms of this limited warranty, it will be replaced.

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.