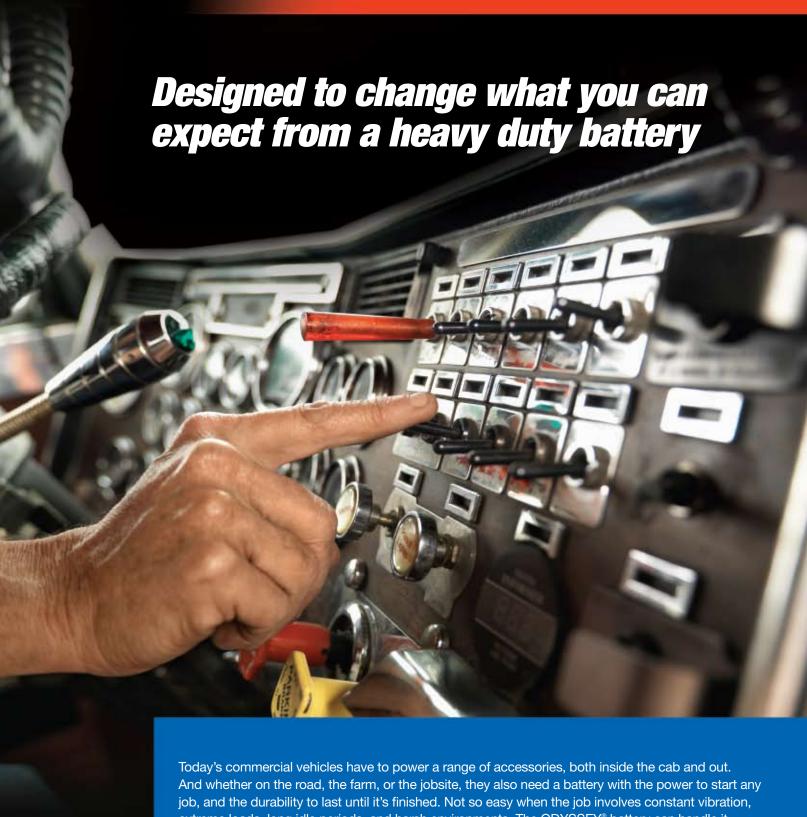


# **Heavy Duty/Commercial**

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





extreme loads, long idle periods, and harsh environments. The ODYSSEY® battery can handle it.

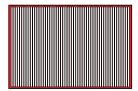
Featuring rugged construction and packed tightly with pure lead plates, the non-spillable AGM design ODYSSEY battery protects against the shock and vibration that can quickly destroy other batteries. And the pure lead plates mean more power—twice the overall power and three times the life of conventional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

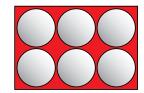
Bottom line? The ODYSSEY battery delivers massive starting power, rapid recovery, and extreme durability that heavy duty and commercial vehicles demand.



## **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® 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 25amp, 40amp (3 bank), 50amp (3 bank), and 50amp (single bank).



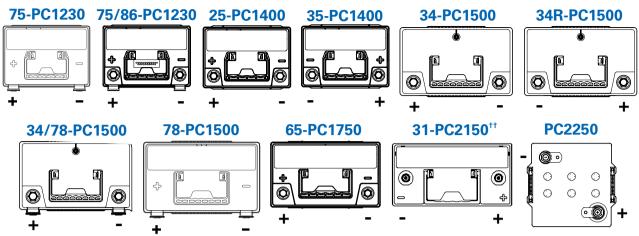
Optional height adapter may be used on 34-PC1500 models for installations where a group 24 or group 27 is required. Snap the adapter securely into place on the

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.

## 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; classified as non- spillable in accordance with the U.S. Department of Transportation regulations (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. †† Optional Metal Jacket (MJ)

	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	Tor que Specs in-Ibs (Nm max)	Internal Resistance (m Ω)	Short Circuit Current
75-PC1230		12	1230	730	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
25-PC1400 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
34R-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
78-PC1500	· Control of	12	1500	880	1250	1050	68	62	135	10.85 (275.6)	6.99 (177.5)	7.12 (180.6)	49.5 (22.4)	SIDE 3/8" Receptacle	60 (6.8)	2.5	3100A
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
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 <sup>†</sup>	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

#### \*\*Pulse Current 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					

<sup>†</sup> Can be fitted with brass automotive terminal Operating temperature range:

<sup>-40°</sup>C (-40°F) to 80°C (176°F) -30°C (-22°F) to 40°C (104°F) for PC2250

## **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 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) for PC1200 to 31-PC2150.

### 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 to power the toughest jobs



### **Tractor trailers**

With today's no-idling laws, big rigs need a battery that can keep everything in the cab running when the engine isn't. The ODYSSEY® battery can power a range of on-board accessories and still deliver reliable starts.



### **Construction equipment**

Along with dusty, dirty jobsites, building equipment has to endure repeated shock and vibration. With its rugged, sealed construction, ODYSSEY batteries are built to take a pounding and perform in the toughest conditions.



## **Farming equipment**

Farm vehicles have to perform in harsh environments, often after sitting idle 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).



## **Buses/RVs**

The electronics in today's RVs and charter buses require deep cycle reserve power. The ODYSSEY battery delivers it while providing massive starting and up to 3X the service life of conventional commercial batteries.



### **Box trucks/Cargo vans**

Big delivery vehicles need big starting power, even after hours of starts and stops with little recovery time. With its massive deep cycle reserve power, the ODYSSEY battery can handle the most demanding routes.



## **Emergency Response**

With its maintenance-free starting power and massive deep cycle reserve power for on-board accessories, the ODYSSEY battery protects and serves when it matters most.

- Police cruisers
- Fire trucks
- Ambulances

# **About EnerSys**<sub>®</sub>

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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### EnerSvs Australia Ptv Ltd.

54-58 Derby Street Silverwater, NSW 2128 Australia

Tel: + 61 (0) 2 9739 9999 Fax: + 61 (0) 2 9739 9900

www.odysseybattery.com

#### 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 PC1220, 75-PC1230, 75/86-PC1230, PC1350, 25-PC1400, 35-PC1400, 34-PC1500, 34M-PC1500, 34R-PC1500, 34/78-PC1500, 78-PC1500, 65-PC1750, 31-PC2150, 31M-PC2150 and PC2250 batteries, except in APU (auxiliary power unit) applications, then warranty is two (2) years. 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, at the discretion of Manufacturer, adjustment is necessary due to defect in material or workmanship (not merely discharged). Batteries for warranty replacement consideration are to be returned to the original supplying distributor/dealer. If not truly 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.

### **GENERAL PROVISIONS**

A. 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. 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 then 14.0V and no higher then 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.
- 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.
- 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 the establishment of irreversible crystallized sulphation in the battery plate oxide. Failure to address this destroys battery capacity and voids the warranty, as this is not a warranted defect in materials or workmanship. A battery with an open circuit voltage (OCV) of equal to or less then 10.0V will be deemed as overdischarged and void from 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 jars or covers. These materials may cause permanent damage to the battery jar and cover and will void the warranty.
- B. To obtain warranty service:
- 1. Return the Battery to any authorized ODYSSEY battery 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.
- 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 sole 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.