The shortcut to success.

Battery solutions for commercial vehicles.







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The world is changing. That's why we are energizing a new world.

For Exide, now is the time to release new energies to move even more into the future. Our new alignment **"Energizing a new world"** is designed to convey this aspiration. We want to bring change to life, face challenges together with our partners, and develop solutions for today and tomorrow. Let's create the future – the Exide way:

- Innovation is the engine of technology leadership. That's why we are constantly evolving, remaining self-critical, and continue to inspire our customers.
 - Reliability defines our business. This applies to our products as well as our innovative development, services, and partnerships. Our responsibility does not end with our products, but starts right there.
- Sustainability is an important part of our responsibility. That's why we rely on renewable energies and intelligent recycling concepts.
- High Performance is the standard we set for our products and services. All our solutions are best of class. This means our customers are optimally equipped for any task.

You have great future plans? We put your projects on the right track.

High-performance batteries for extra business power. Logistics is more important than ever, with customers expecting faster and more predictable deliveries. In this competitive environment, fleet owners are focusing on total cost of ownership. After all, when a truck is off the road, it leads to customer dissatisfaction, unused labor and capital, and potential fines and penalties.

Exide designed its battery range to reduce the risk of breakdowns and give customers a competitive advantage. You get battery options for any use case, market-leading performance, lower total cost of ownership.



Trusted by leading commercial vehicle manufacturers.

Exide has been supplying lead-acid batteries to car and truck makers for more than 130 years. We design the most technically advanced products in the industry, and were the first to introduce High Vibration Resistant (HVR) batteries for trucks back in 2008. Vehicle manufacturers trust the quality of our products and our commitment to excellence in manufacturing.

Exide works with leading commercial vehicle manufacturers, including:

AGCO group, Bobcat, Case, Claas, Evobus, Isuzu, Iveco, John Deere, Komatsu, Kubota, MAN, Mercedes Trucks, New Holland, Nissan, Renault Volvo Trucks, SAME Deutz-Fahr, Scania, Wacker Neuson, and many others...



There are numerous challenges. And we have the right battery for each one.

As a true expert in OE batteries, Exide helps you select the right battery. For fleet owners and installers alike, it is vital to make the right choice for the conditions of use. Three important criteria to consider in battery performance are vibration resistance, cycling endurance, and cranking power.

Three main factors when selecting the right battery.



Vibration resistance

For trucks with rear-chassis battery installations (e.g. Euro 5/Euro 6 trucks), robust and highly vibration-resistant batteries are mandatory to avoid breakdowns. Vibration resistance is also required for any vehicle operating on bad roads or rough terrain.



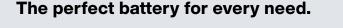
Cycling endurance

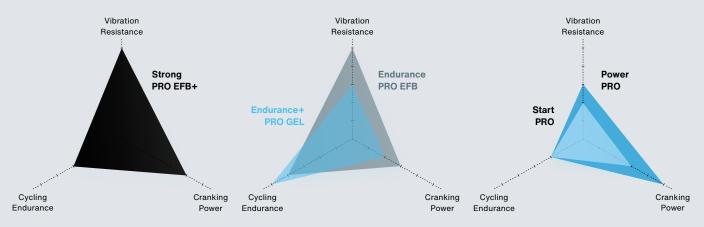
High cycling endurance is important in batteries for long-haul trucks with life on-board, commercial vehicles doing intensive urban deliveries, and any commercial vehicle with extensive energy requirements. This maximizes battery lifespan and ensures a safe battery start.



Cranking power

High cranking power allows for engine starts in cold climates and is particularly required by many agriculture and construction vehicles with reliable starting power needs.





Range overview and features.

Performance	Strong PRO EFB+	Endurance PRO EFB	Endurance+ PRO GEL	Power PRO	Power PRO Agri & Construction	Start PRO
Vibration resistance						
Cycling endurance						
Cranking power						
Charge acceptance						
Maintenance				(F)	(F)	

Battery recommendation by vehicle type & application.

Type of vehicles	Application	Strong PRO EFB+	Endurance PRO EFB	Endurance+ PRO GEL	Power PRO	PowerPRO Agri & Construction	Start PRO
Long-haul modern trucks, standard trucks	Rear-chassis installation/ rough terrain, high vibrations	\oslash	\bigotimes^1				
Express delivery (lifters), city bus	Power-hungry equipment, deep cycling applications	\oslash		\bigotimes^2			
Long-haul modern trucks	Overnight stop/ hotel function	\oslash	\bigotimes^1				
Standard trucks or vehicles with large/highly compressed engines	Extreme climate and/or high CCA requirements				\oslash		
Tractors, construction machines	Special vehicles					\bigotimes^3	
Standard trucks	Standard requirements/ older vehicle						⊘³
1 Please top up the battery with distilled water if needed. 2 Endurance+ PRO GEL requires charging voltage limitation 3 Top up with distilled water when needed							

 Please top up the battery with distilled water if needed. The charging system must be compatible with Sb/Ca alloy. If these conditions are not met, choose the Strong PRO EFB+. 2 Endurance+ PRO GEL requires charging voltage limitation to max 14.4V. If not compatible, choose the Strong PRO EFB+. 3 Top up with distilled water when needed (depending on battery model)

Smart tools & accessories

Exide Charger WSC720

Exide WSC720 is designed to meet the growing needs of garages. It comes with the latest technology, including a temperature sensor to optimize charging performance and specific charging curves for AGM, GEL, and conventional. This ensures an excellent charge each time. WSC720 is suitable for batteries from 40–500 Ah, and is ideal for the challenges of a modern garage.



Battery Finder Online & App

Best-in-class fitment information for all types of commercial vehicles. Find the right battery online at exidegroup.com or onthe-go with our Exide Battery Finder app.





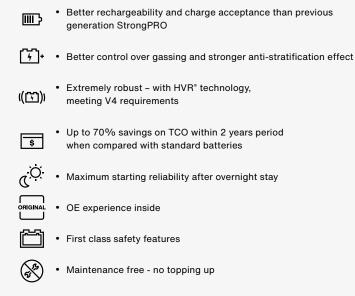
StrongPRO EFB+

Strong, stronger, EFB+.

Exide's StrongPRO battery range is now stronger than ever. A new carbon-based formula of negative active mass enhances the rechargeability and charge acceptance of the StrongPRO EFB+ battery. Additionally, the HVR[®] (high-vibration-resistant) technology enables StrongPRO EFB+ to pass the extreme vibration tests under the new European V4 standard (EN 50342-1:2015).

A more robust and more lasting battery means reduced total service cost for fleet owners and truck drivers, allowing less replacements over the vehicle's service life and minimized risk of unexpected and premature battery failure.

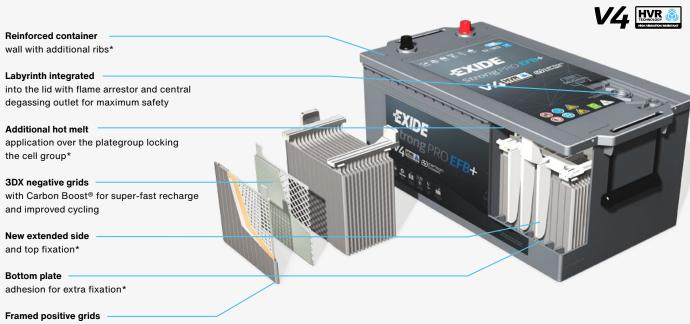
Benefits:





Recommended type of vehicles / use conditions:

Long-haul modern/standard trucks with rear-chassis installations and/or hotel functions, express delivery, and city bus. Ideal for vehicle running on rough terrain, with power-hungry equipment and deep cycling applications.



with heavy-duty polyethylene separator and glass mat for homogeneous compression

*Latest generation of Exide's leading HVR° design, meeting V4 requirements (EN 50342-1:2015)



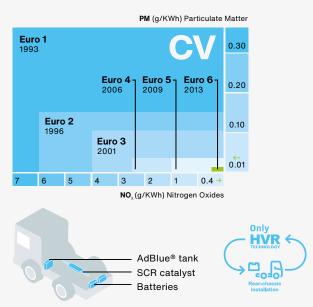


HVR® Technology

New features in the robust battery design.

Several economic factors (higher fuel costs, higher road taxes, higher toll & parking charges, and higher charges to enter low emission zones) have led fleet owners to upgrade by purchasing new Euro 5 or Euro 6 vehicles, thus reducing particulate matter and NOx emissions. Many Euro 5/Euro 6 vehicles have a new chassis layout to integrate the Selective Catalytic Reduction (SCR) system and AdBlue tank, leading truck manufacturers to move batteries into the rear-chassis position.

Emission standards as defined by EU directives

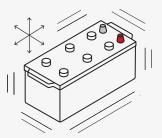


New challenges, new solution.

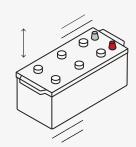
The lifespan of ordinary batteries is greatly reduced by higher vibrations at the rear of the chassis of the vehicle. Exide worked with truck manufacturers to develop the new High Vibration Resistant (HVR®) battery in the market, one of the first to meet the new V4* vibration test.

HVR guarantees a longer battery lifespan even when installed in the rear chassis of a truck.

* EN50342-1



New three-axis test HVR technology allows Exide batteries to pass the strict V4* vibration test, which uses three-axis motion simulating real-life conditions.



Single-axis test The V1-3 tests used single-axis vibration only.

The Carbon Boost® Effect

Exide's smart electrochemical solution for longer battery life.

Early battery failures are common in commercial vehicles, caused by exposure to deep discharge conditions. Challenges to the battery include frequent starting and stopping for urban deliveries, and overnight heating and lighting for long-haul trucks. This strain leads to sulphation and acid stratification, damaging battery lifespan.

With Exide Carbon Boost[®], unique carbon additives increase the speed at which sulphate particles dissolve. This leads to faster recharging, protection from sulphation and less stratification.

The carbon additives also promote controlled gassing during recharging, which keeps the electrolyte mixed and further reduces stratification.

The benefits of Carbon Boost:

- Improved charge acceptance
- · Faster recharging
- Reduced acid stratification
- · Enhanced cycling endurance

Sulphation: Lead sulphate particles progressively cover the negative plates. This makes recharging less efficient, because energy is used to dissolve the lead sulphate.



Without Carbon Boost[®] The plates are covered with sulfate



With Carbon Boost® Sulfate is reduced due to Carbon Boost technology

Acid stratification: Sulphate particles turn into sulphuric acid during charging. This is heavier than the electrolyte, so it sinks to the bottom, creating a range of negative effects, including reduced capacity.



Without Carbon Boost® Sulphuric acid sinks to the bottom of the cell



With Carbon Boost® Controlled gassing mixes the electrolyte and reduces stratification



EndurancePRO EFB

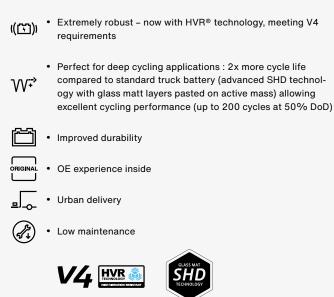
As indestructible as our claim to develop the best solutions.

Exide's EndurancePRO range evolves: the "made for severe cycling" battery range features the innovative HVR® (High Vibration Resistance) design that assures an incomparable level of robustness and minimized risk of unexpected and premature battery failure. Not only does it guarantee excellent cycling performance and reduced stratification, the new EndurancePRO EFB battery now exceeds the highest requirements in the industry's reference vibration test (V4 level in EN50342-1 vibration test) and is perfectly adapted for installation in vehicles running on rough terrain.



All this means less risk of breakdowns, more starting reliability, and longer lifespan.

Benefits:







Recommended type of vehicles / use conditions:

Long-haul modern/standard trucks with rear-chassis installa-tions and/or hotel functions. Ideal for vehicle running on rough terrain. It requires water topping.

Endurance+PRO GEL

Ahead of its time.

Exide Technologies is the inventor of Gel technology, the ultimate choice for the most demanding commercial vehicles applications. Instead of being in liquid form, the electrolyte is fixed in a gel. This leads to unmatchable cycle life. The new Exide Endurance+PRO GEL battery is highly robust, with best-in-class deep cycle properties. It allows unmatched safe depth of discharge of 90%, which improves Total Cost of Ownership (TCO) and minimizes the risk of breakdowns.

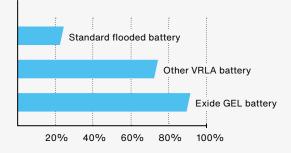




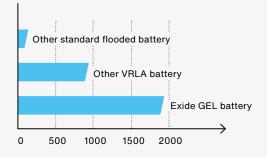
Benefits:

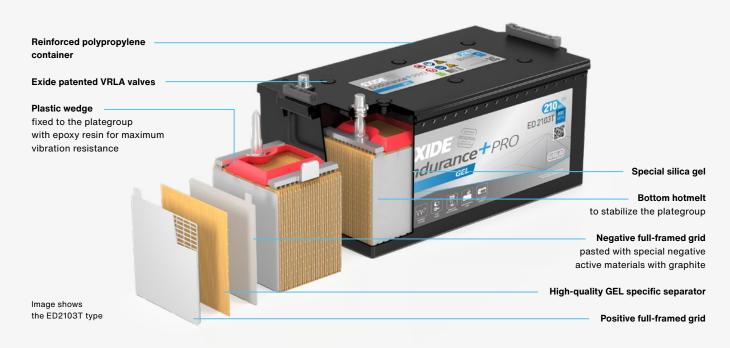
Supports hotel function	
• 2x lifetime compared to equivalent AGM and 10x lifetime compared to equivalent standard flooded batteries	
• High vibration resistant and valve-regulated technology for maximum safety	-L_G Recommended type of vehicles / J_G_G use conditions:
• 90% safe depth of discharge: perfect choice for all commercial vehicles	Express delivery trucks (with and without Dual Systems) and city bus with power-hungry equipment and deep cycling
• Safe and reliable engine start at any time	needs.
 Reduces operating costs 	
• Maintenance free - no topping up	

Safe depth of discharge



Cycling capacity



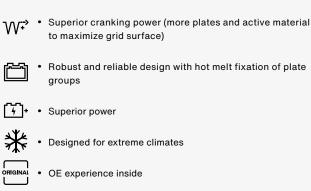


PowerPRO

Impressive power at every start



Benefits:





Recommended type of vehicles / use conditions:

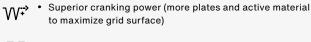
Standard trucks or vehicles with large/highly compressed engine working in extreme climate and/or high CCA requirements.

PowerPRO Agri & Construction

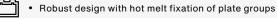
• Maintenance free - no topping up



Benefits:



Choose the original part



• Wide range including special types الوال



• True OE Agri or Construction fit (original part)

Maintenance free - no topping up





Recommended type of vehicles / use conditions:

Tractors and construction machines (agriculture, forestry, and construction machinery)

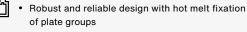
StartPRO Reliable starting power for standard use

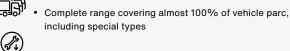


Benefits:



· Ideal for trucks without special requirements in terms of vibration resistance, cycling, or cranking power





· Low maintenance - may need water topping up





Recommended type of vehicles / use conditions:

Strandard truck without specific vibration, cycling or cranking needs.

Exide commercial vehicle batteries type list

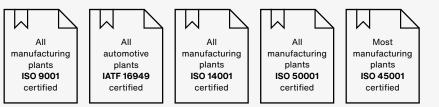
	xide Performance		Dimensions			Technical characteristics		
Code	Capacity Ah	CCA A (en)	L (mm)	W (mm)	H (mm)	Polarity	Hold down	Box
Strong PR	O EFB+							
EE1403	140	800	513	189	223	ETN 3	В0	D04
EE1853	185	1100	513	223	223	ETN 3	В0	D05
EE2353	235	1200	518	279	240	ETN 3	В0	D06
Enduranc	ePRO EFB							
EX1803	180	1000	513	223	223	ETN 3	В0	D05
EX2253	225	1150	518	279	240	ETN 3	В0	D06
Enduranc	e+PRO GEL	-						
ED851T	85	350	349	235	175	ETN 1	В0	D02
ED2103	210	1030	518	279	240	ETN 3	В0	D06
ED2103T	210	800	518	279	240	ETN 3	В0	D06
PowerPR	O 120	870	349	175	235	ETN 0	B1	D02
EF1420	142	850	349	175	290	ETN 0	во	D03
211420	142	000		175	290			
EF1421	142	850	349			ETN 1	BO	
EF1421 EF1453	142	850 900	349 513	189	223	ETN 1 ETN 3	B0 B0	D03 D03
								D03 D04
EF1453	145	900	513	189	223	ETN 3	В0	D03 D04 D05
EF1453 EF1853 EF2353	145 185 235	900 1150 1300	513 513	189 223	223 223	ETN 3 ETN 3	B0 B0	D03 D04 D05
EF1453 EF1853 EF2353 StrongPR	145 185 235 O Agri & Co	900 1150 1300 nstruction	513 513 518	189 223 279	223 223 240	ETN 3 ETN 3 ETN 3	B0 B0 B0	D03 D04 D05 D06
EF1453 EF1853 EF2353 Strong PR EJ1523	145 185 235 O Agri & Co 152	900 1150 1300 nstruction 1130	513 513 518 518	189 223 279 189	223 223 240 223	ETN 3 ETN 3 ETN 3 ETN 3	B0 B0 B0 B0	D03 D04 D05 D06
EF1453 EF1853 EF2353 StrongPR	145 185 235 O Agri & Co	900 1150 1300 nstruction	513 513 518	189 223 279	223 223 240	ETN 3 ETN 3 ETN 3	B0 B0 B0	D03 D04 D05 D06
EF1453 EF1853 EF2353 Strong PR EJ1523	145 185 235 O Agri & Co 152 172	900 1150 1300 nstruction 1130	513 513 518 518	189 223 279 189	223 223 240 223	ETN 3 ETN 3 ETN 3 ETN 3	B0 B0 B0 B0	D03 D04 D05 D06
EF1453 EF1853 EF2353 StrongPR EJ1523 EJ1723	145 185 235 O Agri & Co 152 172	900 1150 1300 nstruction 1130	513 513 518 518	189 223 279 189	223 223 240 223	ETN 3 ETN 3 ETN 3 ETN 3	B0 B0 B0 B0	D03
EF1453 EF1853 EF2353 StrongPR EJ1523 EJ1723 StartPRO	145 185 235 O Agri & Co 152 172	900 1150 1300 nstruction 1130 1390	513 513 518 513 513	189 223 279 189 223	223 223 240 223 223 223	ETN 3 ETN 3 ETN 3 ETN 3 ETN 3	B0 B0 B0 B0 B0	D03 D04 D05 D06
EF1453 EF1853 EF2353 StrongPR EJ1523 EJ1723 StartPRO EG1008	145 185 235 O Agri & Co 152 172	900 1150 1300 nstruction 1130 1390	513 513 518 513 513 513	189 223 279 189 223 175	223 223 240 223 223 223 223	ETN 3 ETN 3 ETN 3 ETN 3 ETN 3 ETN 3	B0 B0 B0 B0 B0 B3	D03 D04 D05 D06 D06



EG1008	100	680	413	175	220	ETN 0	В3	D01
EG1100	110	750	349	175	235	ETN 0	В0	D02
EG1101	110	750	349	175	235	ETN 1	В0	D02
EG110B	110	950	330	173	240	ETN 9	В0	G31
EG1250	125	760	349	175	290	ETN 0	В0	D03
EG1251	125	760	349	175	290	ETN 1	В0	D03
EG1353	135	1000	514	218	210	ETN 3	В0	DB9
EG1355	135	1000	514	175	210	ETN 3	В3	DB8
EG1402	140	900	508	175	205	ETN 0	B1	ATM
EG1403	140	800	513	189	223	ETN 3	В0	D04
EG1406	140	800	510	175	225	ETN 4	В3	D08
EG145A	145	1000	360	253	240	ETN 6	В0	F21
EG1705	170	950	514	218	210	ETN 3	В3	DB9
EG1803	180	1000	513	223	223	ETN 3	В0	D05
EG1806	180	1000	510	218	225	ETN 4	В3	D09
EG2253	225	1200	518	279	240	ETN 3	В0	D06
EG2254	225	1200	518	279	240	ETN 4	В0	D06







ENERGIZING A NEW WORLD



Exide Technologies OY

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