LIGHT VEHICLE
BATTERY SOLUTIONS

Made in Europe by Exide Technologies - Original Equipment Manufacturer

THE FUTURE IS **NOW**

Bringing OE innovation to the independent aftermarket

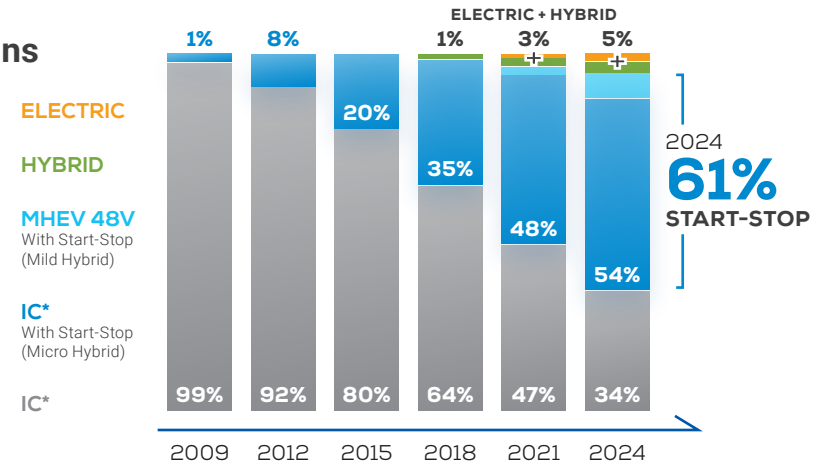
Exide is introducing its next generation of light-vehicle batteries. The range was developed in Exide's original equipment business, and is specially optimised for the most advanced powertrain technologies coming to market now and in the years ahead. It provides unparalleled performance and the reassurance of a leading OE brand. Exide also offers a suite of professional accessories, allowing workshops to provide customers with the highest level of service.

An indisputable trend

Very ambitious EU legislation targets restricting CO_2 emissions have incentivised vehicle manufacturers to design much more efficient cars with modern engines, next-generation fuel-saving capabilities such as Start-Stop, battery management systems and smart alternators. The number of Start-Stop vehicles, all of which need OE-compliant AGM and EFB batteries, is increasing dramatically. While conventional powertrains still powered most of the car parc in 2018, the percentage of Start-Stop vehicles in Europe is growing rapidly every year.

European car parc and changing powertrains

- In 2018, cars with Start-Stop powertrains accounted for approximately 35% of the total car parc in Europe
- By 2024, the majority (61%) of vehicles in the car parc will feature a Start-Stop system (Micro & Mild Hybrids)
- The number of cars with Start-Stop systems will have risen from 1% to 61% in just 15 years
- Significant replacement potential for OE-compliant AGM and EFB batteries in the aftermarket



*IC = Internal Combustion Engine

Source: Exide estimation, EU28+EFTA (European Free Trade Association inc: Iceland, Liechtenstein, Switzerland and Norway)

TRUSTED BY LEADING CARMAKERS

Exide has been supplying lead-acid batteries to carmakers for over 100 years. We design the most technically advanced products in the industry, and were the first to introduce Start-Stop technology to the European market in 2004. Carmakers trust the quality of our products and our commitment to excellence in manufacturing.

EQUIPMENT ORIGINAL MANUFACTURER

Exide works with leading car manufacturers, including :

Alfa Romeo, Bentley, Citroen, Dacia, DS, Fiat, Ford, Hyundai,Jaguar, Jeep, Kia, Lancia, Land Rover, Mazda, Mercedes-Benz, Mitsubishi, Nissan, Opel, Peugeot, Piaggio, Porsche, Renault, Suzuki, Toyota, Volkswagen Group, Volvo

70% of European car brands work with Exide batteries.

LIGHT VEHICLE BATTERY RANGE

AGM P.4

carbon boost 2.0

NEW

EFB P.5

carbon boost 2.0

PREMIUM P.7

EXCELL P.8

CLASSIC P.8

START-STOP | CONVENTIONAL

VEHICLE REQUIREMENTS

	AGM	EFB	PREMIUM	EXCELL	CLASSIC
START-STOP POWERTRAIN	Replace AGM / AGM — Recommended OE Replacement	Replace EFB / EFB — Recommended OE Replacement	✕	✕	✕
NON START-STOP POWERTRAIN	✕ Unless specified by vehicle manufacturer	**Extra life** for conventional vehicles	**Carbon Boost®** Faster recharge for high equipment level	**Widest Range** to fit almost 100% of car parc	**Cost Effective** for older and more basic vehicles
REGENERATIVE BRAKING	■■■■■	■■■■□	✕	✕	✕
INTENSIVE URBAN USE	■■■■■	■■■■□	■■■□□	■□□□□	■□□□□
POWER HUNGRY EQUIPMENT	■■■■■	■■■■■	■■■□□	■■□□□	■□□□□

BATTERY PERFORMANCE

	AGM	EFB	PREMIUM	EXCELL	CLASSIC
CCA COLD CRANKING AMPERES	■■■■■	■■■■□	■■■■■	■■■□□	■■□□□
CHARGE ACCEPTANCE*	■■■■■	■■■■□	■■■□□	■□□□□	■□□□□
CYCLE LIFE	■■■■■	■■■■□	■■□□□	■□□□□	■□□□□
EXTRA ENERGY**	■■■■■	■■■■□	■■■□□	■■□□□	■□□□□

* Charge Acceptance (in A/Ah) ** Energy throughput during lifetime

EXIDE AGM

SPARE ORIGINAL PART

For toughest electrical needs of Start-Stop vehicles

Continuous investments in R&D have allowed Exide to propose the latest innovative AGM batteries from OE also to the aftermarket. It features the new LifeGrid® technology, perfect for advanced Start-Stop systems where the battery needs to be quickly recharged through the energy provided by the regenerative braking system.

The new LifeGrid® technology, combined with high-capillarity glass mat separators, advanced lead-tin alloys and unique carbon additives in the active mass, provides consistent power and even longer battery life.

AGM TECHNOLOGY

Benefits

- **Top charge acceptance** NEW
- **Higher energy throughput over battery lifespan thanks to new LifeGrid® technology** NEW
- Optimised for partial state of charge operations
- Ideal for large cars, SUVs, vans and vehicles with Start-Stop and power-hungry electrical equipment
- Top-level safety features and absolutely no free acid
- Recombinant VRLA (valve regulated)
- Latest generation approved by car manufacturers
- Great car parc coverage from a limited number of SKUs
- Long shelf life

START STOP

Designed and built to endure continuous battery discharge and recharge of Start-Stop systems

Typical pattern of State of Charge during a journey with Start-Stop system

SEALED DOUBLE SECURITY LID
with degassing outlet and flame arrestor

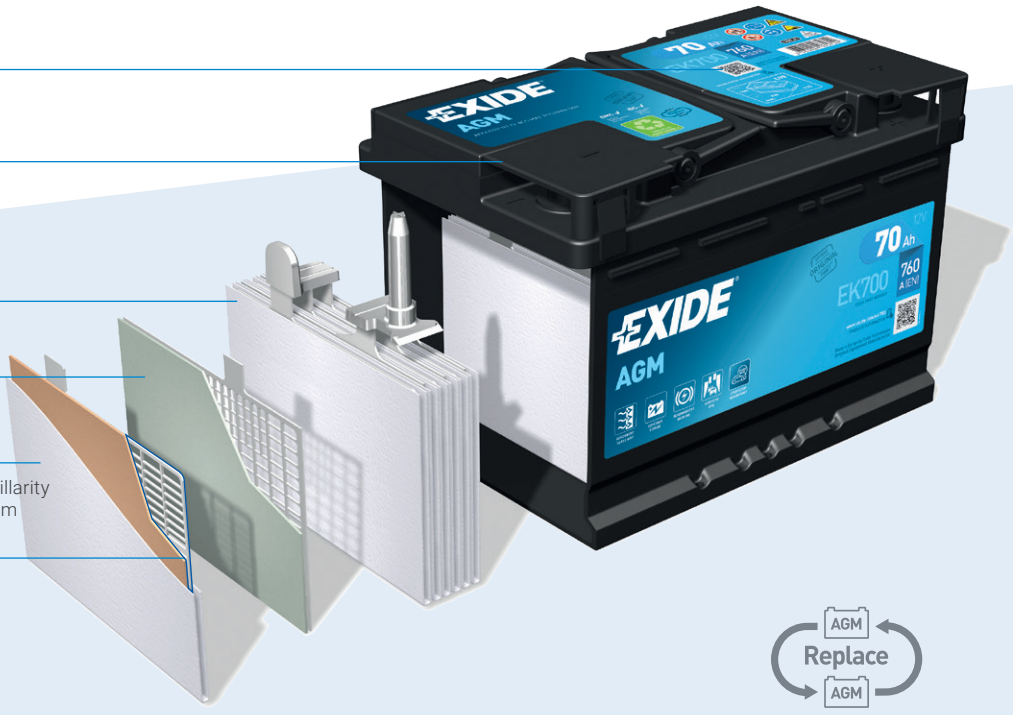
Exide unique
VALVE REGULATED VENTING

TALL PLATE GROUP
with high compression

NEGATIVE PLATE
Framed negative plate

POSITIVE PLATE
New framed grid design with high-tech alloy. The high-capillarity glass mat separator provides extra absorption for maximum electrolyte volume and to avoid stratification.

THE NEW LIFEGRID® NEW
Exide's new grid design provides consistent power and longer battery life



AGM Replace AGM

EXIDE EFB NEW carbon boost 2.0

SPARE ORIGINAL PART

OEM experience for the aftermarket

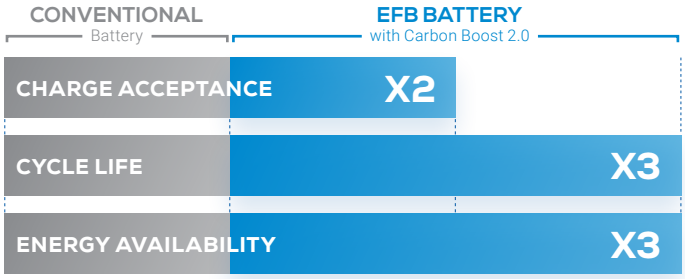
First invented by Exide in 2008, EFB batteries have come to play an increasingly crucial role for car manufacturers in order to reduce fuel consumption and emissions. Now Exide brings the latest OE generation to the aftermarket, featuring **Carbon Boost 2.0**.
The new Exide EFB battery **supports all vehicles, with and without Start-Stop systems**, which have high cycling requirements. When installed in cars with a Start-Stop system, Exide's new EFB battery shows an unmatched energy recovery and exceptional dynamic charge acceptance. The battery also benefits from a longer overall lifespan, when installed in cars with conventional powertrain.

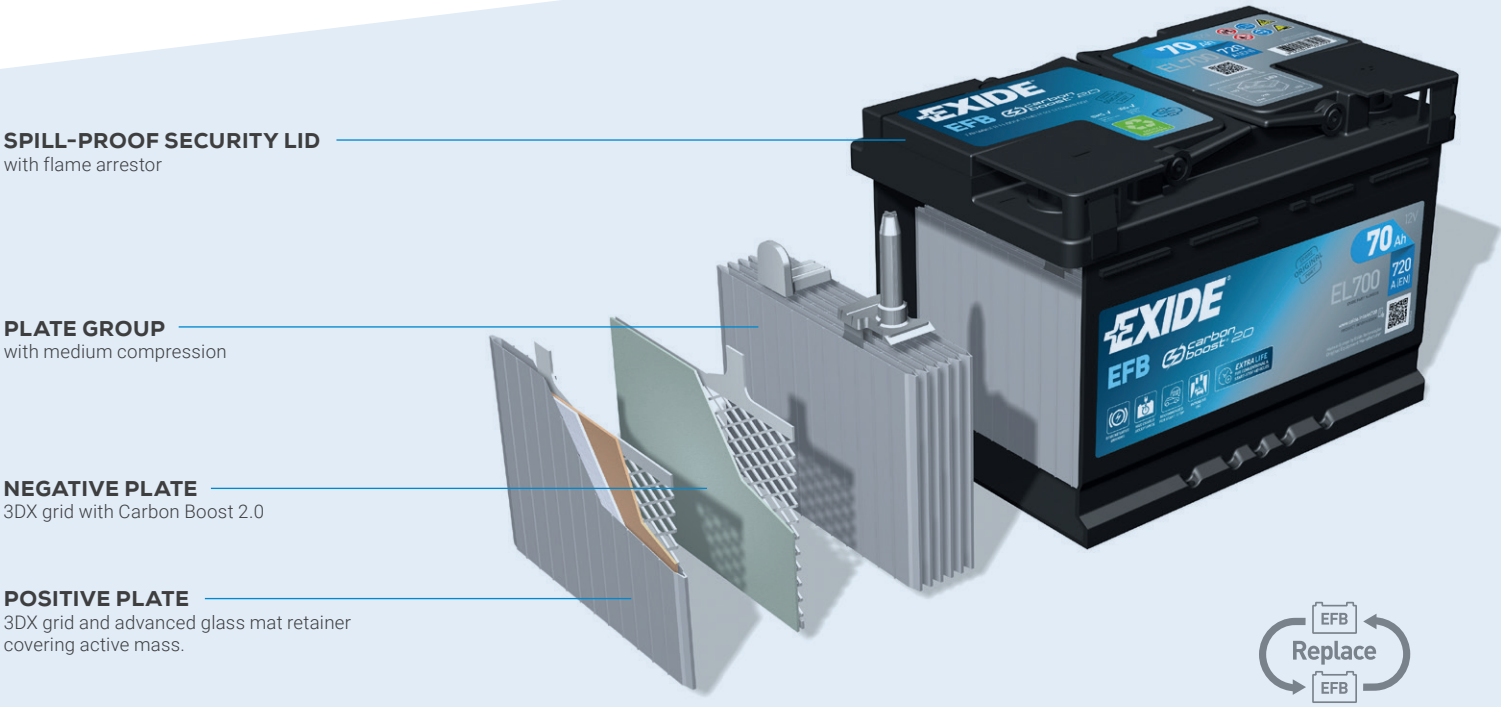
EFB TECHNOLOGY

Benefits

- **High dynamic charge acceptance over life of battery** NEW
- **Extra energy for vehicles with and without Start-Stop systems** NEW
- **Optimised regenerative braking functionality in vehicles with Start-Stop systems – ensuring maximum fuel savings and less CO_2 emissions** NEW
- High-level safety features
- Optimal operation in engine compartment
- Latest generation approved by car manufacturers
- Great car parc coverage from a limited number of SKUs
- Long shelf life

Exide EFB offers significant performance advantages over a conventional battery also when fitted into a car without Start-Stop system.



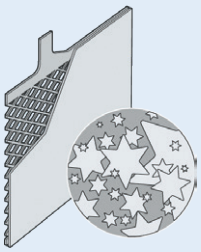


CARBON BOOST 2.0

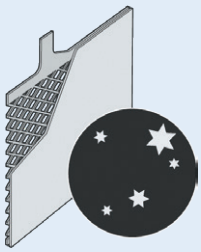
EQUIPMENT ORIGINAL MANUFACTURER

Carbon Boost® is Exide's unique recipe for carbon additives on the negative plates that was first developed for Exide's Start-Stop OEM batteries. Continuous investments in R&D, tighter emissions regulations and the increasing demands from the OEMs in regards to charge acceptance and energy availability have lead to the development of the new **Carbon Boost 2.0**.

Carbon Boost 2.0 uses improved carbon additives, combining an optimized surface structure with significantly better conductivity. This enables a better current flow within the battery, resulting in unmatched charge acceptance. It also helps to dissolve the lead sulfate deposits that usually consolidate on a battery's discharged negative plates, reducing its ability to charge back efficiently.



WITHOUT CARBON BOOST
The plates are covered with sulfate



WITH CARBON BOOST
Sulfate is reduced due to Carbon Boost technology

carbon boost 2.0

EXIDE EFB

Exide's new EFB batteries feature Carbon Boost 2.0. with exceptional dynamic charge acceptance, offering important benefits for drivers, especially in intensive urban driving conditions.

Benefits

- 75% more energy recovered in the same amount of time compared to older EFB
- Optimized regenerative braking functionality - ensuring fuel savings and reduction of CO_2 emissions
- Longer overall lifespan

carbon boost 2.0

EXIDE PREMIUM

Carbon Boost was first introduced in the aftermarket Premium range in 2014. The new Carbon Boost 2.0. brings performance to the next level.

Benefits

- Faster recharging (2 × times faster than other conventional batteries)
- Longer lifespan (higher average state-of-charge throughout battery life)

WLTP (WORLDWIDE HARMONISED LIGHT VEHICLE TEST PROCEDURE)

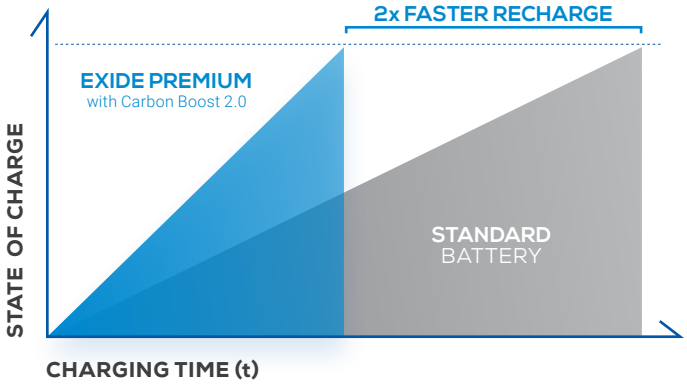
Strict new EU regulations have imposed a CO_2 emissions limit of 95g/km in vehicle homologation testing by 2021*.

The WLTP test measures how much battery capacity is depleted in testing and converts it to equivalent fuel consumed and CO_2 emitted. The battery should retain a high percentage of its initial capacity to help car makers avoid being penalized when passing certain thresholds. Since the recharging process accounts for only 8% of test duration, the battery needs to achieve the highest possible energy recovery in a short time.

With Carbon Boost 2.0, the dynamic charge acceptance of EFB batteries is maximized, and

- The battery accepts 75% higher average recharging current than previous generation
- It preserves a higher capacity at the end of the test (2,5 × less state-of-charge loss compared to previous generations)

*Fleet average/bonus included



Lab tests show that it takes significantly less time to recharge an Exide Premium Carbon Boost battery than a standard battery under the same conditions.

EXIDE PREMIUM carbon boost 2.0

MATCHING QUALITY PART

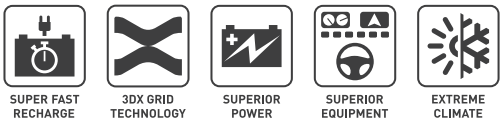
The latest Premium with Carbon Boost 2.0 now recharges up to 2 times faster compared to other conventional batteries, thanks to Exide's proprietary application of carbon additives on the negative plates.

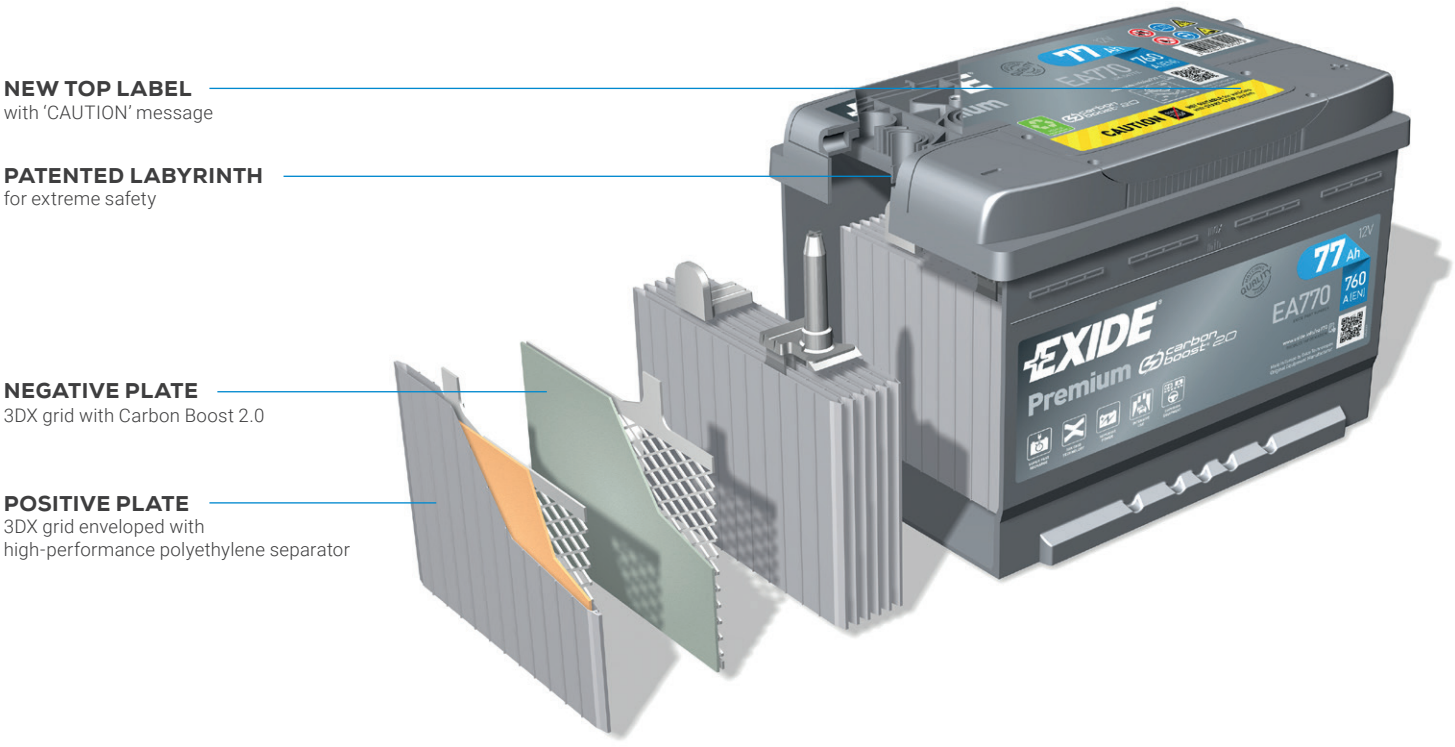
While battery failure remains the number one cause of car breakdowns*, fast recharging considerably reduces the risk of breakdowns by helping the battery retain a healthy state of charge for longer.

The Premium Carbon Boost battery is designed to withstand extreme temperature, power-hungry electrical equipment and intensive urban driving.

Benefits

- **Recharges up to 2 times faster compared to other conventional batteries** NEW
- **Latest plate design for greater robustness and increased resistance to high temperatures** NEW
- **Updated top label – 'CAUTION' label to prevent conventional batteries to be installed on Start-Stop vehicles** NEW
- 30% extra starting power
- Ideal for highly equipped cars with powerful engines and demanding electrical needs
- Ideal for extreme weather and urban driving conditions
- Original equipment experience inside
- Meets OE requirements
- Comprehensive range covering around 90% of car parc





DID YOU KNOW?
THINGS THAT DRAIN YOUR BATTERY

Cold weather significantly impairs battery performance. But it is during the cold season that more energy is needed for light and heating.

Hot weather accelerates self-discharge, grid corrosion and active material shedding. It could lead to shorter service life if batteries are not reinforced for extreme climates.

In urban environments the engine is often turned off or idle, and the electrical system may consume more power than the alternator can supply. This puts extra pressure on the battery.

Power-hungry electrical equipment, such as media players or navigation equipment, put extra pressure on the battery.

EXIDE EXCELL

Benefits

- **Updated top label –'CAUTION' label to avoid conventional batteries to be installed on Start-Stop vehicles** NEW
- 15% extra starting power
- All-round battery for standard use
- Complete range covering almost 100% of car parc
- Original equipment experience inside

3DX GRID TECHNOLOGY | MEDIUM POWER | STANDARD EQUIPMENT

EXIDE CLASSIC

Benefits

- **Updated top label –'CAUTION' label to avoid conventional batteries to be installed on Start-Stop vehicles** NEW
- Economy solution
- Ideal for cars with basic power needs

3DX GRID TECHNOLOGY

INSTALLATION ADVICE ON TOP LABELS NEW

Exide is the first in the market to add a distinctive, **'CAUTION' label on its Premium, Excell** and **Classic** standard flooded batteries, to ensure that they are only fitted into cars that are **NOT** equipped with a Start-Stop system.

Trust the battery expert for trouble-free installation and enhanced customer satisfaction.

START-STOP AUXILIARY

MATCHING QUALITY PART

The reliable secondary battery

Auxiliary batteries power the electrical equipment in certain cars, as a complement to the main starter battery.

ABSORBENT GLASS MAT | INTENSIVE USE | 3 x STANDARD CYCLABILITY

Benefits:

- 3 times higher cycle life
- Long shelf life
- VRLA (valve regulated) for leak-proof security
- Original equipment experience inside

INNOVATIVE
WORKSHOP TOOLS

Exide has a comprehensive range of accessories and support. We help you test, charge, select, replace and recycle batteries – everything workshops need to keep work in house, provide quality service and grow profitability.

TESTING

EBT-965P BATTERY TESTER

Exide's advanced and easy to use EBT-965P is the next-generation battery tester, designed for the most reliable diagnostics of any make or type of battery. It enables preventative maintenance and ensures maximum customer satisfaction.

Previous testers only measured the conductance, but the new EBT-965P also features Conductance Profiling™, including battery health and the remaining available energy in the test results.

CONVENTIONAL | AGM | EFB | GEL

STANDARD TESTERS

Conductance

Cranking Capability CCA

EXIDE EBT-965P TESTER

Conductance Profiling™

Energy Availability START STOP CCA

CHARGING

BATTERY CHARGER

Exide chargers can be used on cars, boats and motorcycles, and are ideal for both consumers and professionals alike.

Workshops use the device to ensure customers leave with a fully charged battery every time.

CONVENTIONAL | AGM | EFB | GEL

REPLACING

BRT-12 BATTERY REPLACEMENT TOOL

Our award-winning* Battery Replacement Tool comes pre-loaded with battery codes, and makes it easy to replace batteries and clear faults from the dashboard.

* Professional Motor Mechanic magazine Top Product Award 2013

SELECTING

BATTERY FINDER APP

Search by car model, VIN or registration number to quickly find the right battery on the go.

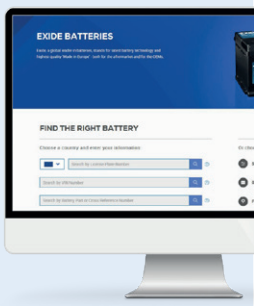
Google Play | App Store

NEW

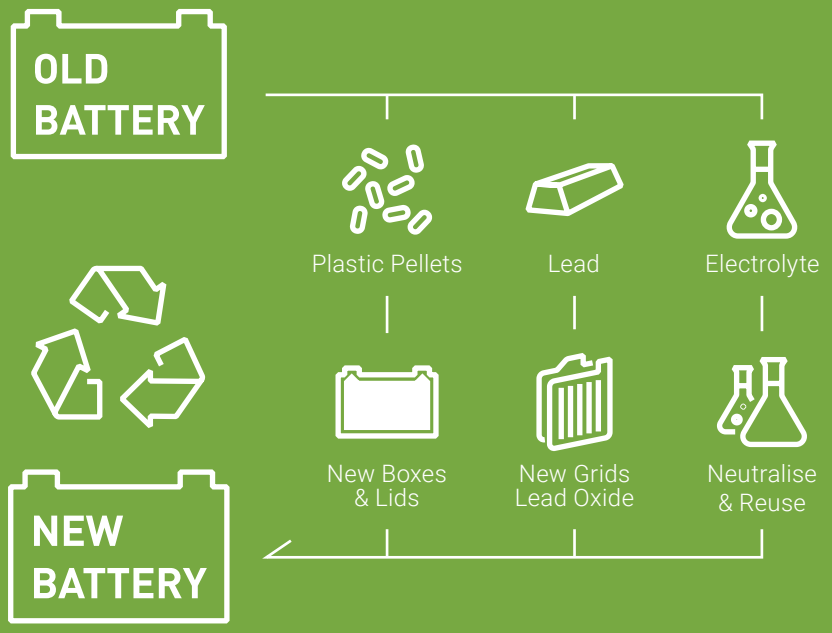
BATTERY FINDER ONLINE

The new Online battery finder features a modern interface and all-new user experience, it supports battery selection and fitting for the most comprehensive range of vehicle types such as cars, buses, trucks and motorcycles – plus, for the first time, construction and agricultural vehicles, ATVs, snow mobiles and jet skis.

www.exide.com/eu/en/battery-finder



MORE THAN A MANUFACTURER
EXIDE RECYCLES!



99%
OF A LEAD-ACID BATTERIES
ARE RECYCLED IN EUROPE*

100%
OF A LEAD-ACID BATTERY
CAN BE RECYCLED

3 **EXIDE RECYCLING FACILITIES** IN EUROPE

*Source: Eurobat/IHS Global 2014

TYPE LIST

START-STOP
CONVENTIONAL

AGM

Exide	Performances		Dimensions				Technical Characteristics		
Code	Capacity Ah	CCA A (EN)	Container	L (mm)	W (mm)	H (mm)	Hold down	Polarity	Terminals
EK508	50	800	G34	260	173	206	B7	ETN 9	1
EK600	60	680	L02	242	175	190	B13	ETN 0	1
EK700	70	760	L03	278	175	190	B13	ETN 0	1
EK800	80	800	L04	315	175	190	B13	ETN 0	1
EK950	95	850	L05	353	175	190	B13	ETN 0	1
EK1050	105	950	L06	392	175	190	B13	ETN 0	1

EFB

EL550	55	480	L01	207	175	190	B13	ETN 0	1
EL600	60	640	L02	242	175	190	B13	ETN 0	1
EL604	60	520	D23	230	173	222	B0	ETN 0	1
EL605	60	520	D23	230	173	222	B0	ETN 1	1
EL652	65	650	LB3	278	175	175	B13	ETN 0	1
EL700	70	720	L03	278	175	190	B13	ETN 0	1
EL752	75	730	LB4	315	175	175	B13	ETN 0	1
EL800	80	720	L04	315	175	190	B13	ETN 0	1
EL954	95	800	D31	306	173	222	Korean B1	ETN 0	1
EL955	95	800	D31	306	173	222	Korean B1	ETN 1	1
EL1000	100	900	L05	353	175	190	B13	ETN 0	1
EL1050	105	950	L06	392	175	190	B13	ETN 0	1

AUXILIARY

EK091	9	120	C54	150	90	105	B0	ETN 1	M12
EK111	11	150	C55	150	90	130	B0	ETN 1	M04
EK131	13	200	C56	150	90	145	B0	ETN 1	M04
EK143	14	80	C76	150	100	100	B0	ETN 3	Screwed/Lug
EK151	15	200	C56	150	90	145	B0	ETN 1	Small taper post

PREMIUM

Exide	Performances		Dimensions				Technical Characteristics		
Code	Capacity Ah	CCA A (EN)	Container	L (mm)	W (mm)	H (mm)	Hold down	Polarity	Terminals
EA386	38	300	B19	187	136	220	B1	ETN 0	3+Adapter
EA456	45	390	B24	237	136	227	B1	ETN 0	3+Adapter
EA472	47	450	LB1	207	175	175	B13	ETN 0	1
EA530	53	540	L01	207	175	190	B13	ETN 0	1
EA601	60	600	L02	242	175	190	B13	ETN 1	1
EA612	61	600	LB2	242	175	175	B13	ETN 0	1
EA640	64	640	L02	242	175	190	B13	ETN 0	1
EA654	65	580	D23	230	173	222	Korean B1	ETN 0	1
EA680	68	650	S68	277	175	190	B13/Adapter	ETN 0	1
EA681	68	650	S68	277	175	190	B13/Adapter	ETN 1	1
EA722	72	720	LB3	278	175	175	B13	ETN 0	1
EA754	75	630	D26	270	173	222	Korean B1+B6	ETN 0	1
EA755	75	630	D26	270	173	222	Korean B1+B6	ETN 1	1
EA770	77	760	L03	278	175	190	B13	ETN 0	1
EA852	85	800	LB4	315	175	175	B13	ETN 0	1
EA900	90	720	L04	315	175	190	B13	ETN 0	1
EA954	95	800	D31	306	173	222	Korean B1	ETN 0	1
EA955	95	800	D31	306	173	222	Korean B1	ETN 1	1
EA1000	100	900	L05	353	175	190	B13	ETN 0	1
EA1050	105	850	LH4	315	175	205	B13	ETN 0	1

EXCELL

EB320	32	270	E01	178	135	225	B1	ETN 0	1
EB356	35	240	B19	187	136	220	B0	ETN 0	3
EB356A	35	240	B19	187	136	220	Korean B1 Long	ETN 0	3
EB357	35	240	B19	187	136	220	B0	ETN 1	3
EB440	44	400	L00	175	175	190	B13	ETN 0	1
EB442	44	420	LB1	207	175	175	B13	ETN 0	1
EB450	45	330	E02	220	135	225	B1	ETN 0	1
EB451	45	330	E02	220	135	225	B1	ETN 1	1
EB454	45	330	B24	237	136	227	B0	ETN 0	1
EB455	45	330	B24	237	136	227	B0	ETN 1	1
EB456	45	330	B24	237	136	227	B0	ETN 0	3
EB457	45	330	B24	237	136	227	B0	ETN 1	3
EB500	50	450	L01	207	175	190	B13	ETN 0	1
EB501	50	450	L01	207	175	190	B13	ETN 1	1
EB504	50	360	D20	200	173	222	Korean B1	ETN 0	1
EB505	50	360	D20	200	173	222	Korean B1	ETN 1	1
EB602	60	540	LB2	242	175	175	B13	ETN 0	1
EB604	60	390	D23	230	173	222	Korean B1	ETN 0	1
EB605	60	390	D23	230	173	222	Korean B1	ETN 1	1
EB608	60	640	G75	230	180	186	B9	ETN 1	SAE S side Terminal 3/8"
EB620	62	540	L02	242	175	190	B13	ETN 0	1
EB621	62	540	L02	242	175	190	B13	ETN 1	1
EB704	70	540	D26	270	173	222	Korean B1+B6	ETN 0	1
EB705	70	540	D26	270	173	222	Korean B1+B6	ETN 1	1
EB712	71	670	LB3	278	175	175	B13	ETN 0	1
EB740	74	680	L03	278	175	190	B13	ETN 0	1
EB741	74	680	L03	278	175	190	B13	ETN 1	1
EB758	75	770	G78	260	180	186	B7	ETN 1	SAE S side Terminal 3/8"
EB788	78	850	G65	306	192	192	B1	ETN 1	1
EB800	80	640	L04	315	175	190	B13	ETN 0	1
EB802	80	700	LB4	315	175	175	B13	ETN 0	1
EB852	85	760	LB5	353	175	175	B13	ETN 0	1
EB950	95	800	L05	353	175	190	B13	ETN 0	1
EB954	95	720	D31	306	173	222	Korean B1	ETN 0	1
EB955	95	720	D31	306	173	222	Korean B1	ETN 1	1
EB1000	100	720	LH4	315	175	205	B13	ETN 0	1
EB1100	110	850	L06	392	175	190	B13	ETN 0	1

CLASSIC

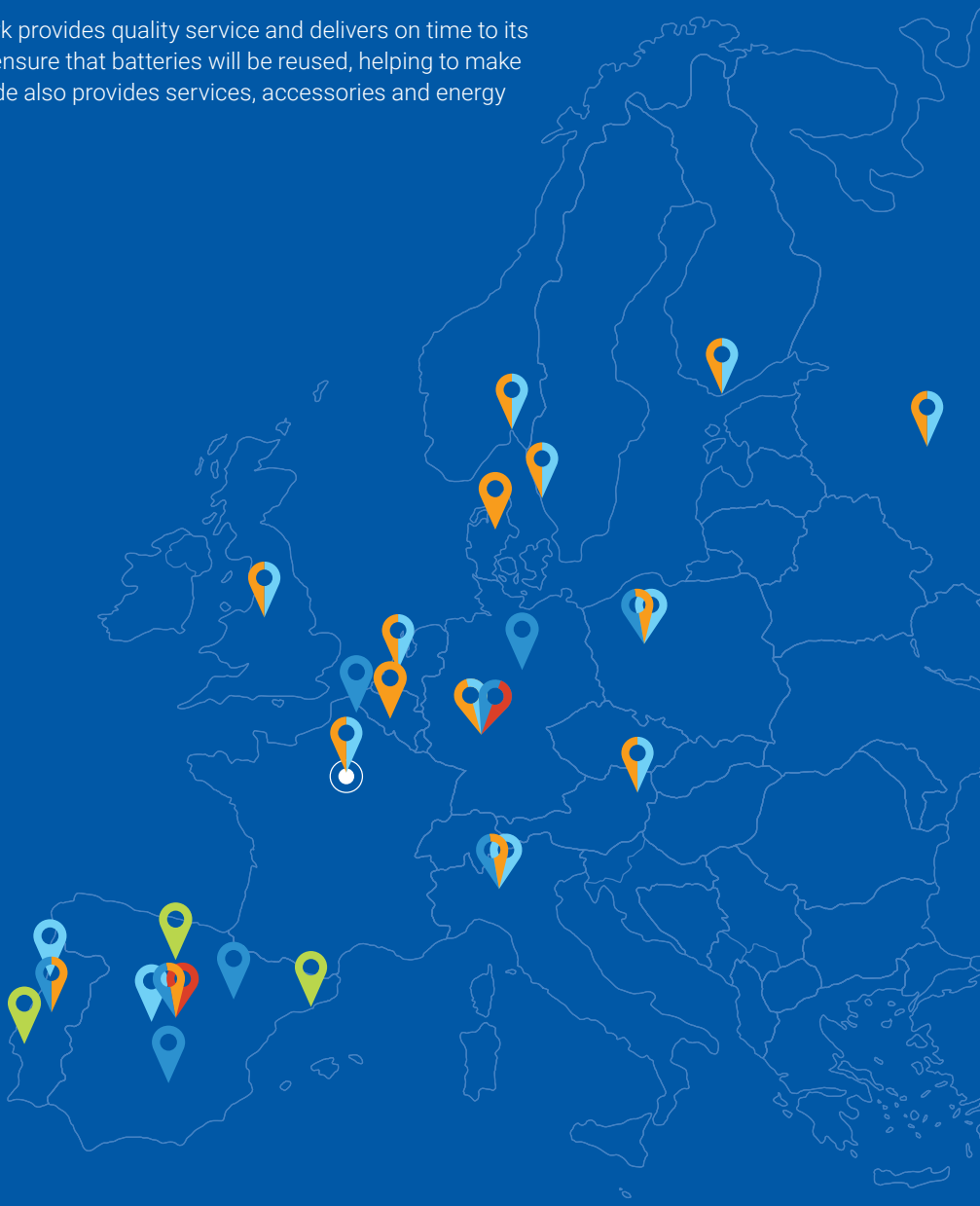
EC400	40	320	L00	175	175	190	B13	ETN 0	1
EC412	41	370	LB1	207	175	175	B13	ETN 0	1
EC440	44	360	L01	207	175	190	B13	ETN 0	1
EC542	54	500	LB2	242	175	175	B13	ETN 0	1
EC550	55	460	L02	242	175	190	B13	ETN 0	1
EC605	60	440	D26	270	173	222	Korean B1+B6	ETN 1	1
EC652	65	540	LB3	278	175	175	B13	ETN 0	1
EC700	70	640	L03	278	175	190	B13	ETN 0	1
EC900	90	720	L05	353	175	190	B13	ETN 0	1
EC904	90	680	D31	306	173	222	Korean B1	ETN 0	1
EC905	90	680	D31	306	173	222	Korean B1	ETN 1	1

Exide Technologies, with operations in more than 80 countries and more than 130 years of experience, is one of the world's largest producers and recyclers of lead-acid batteries. The company develops state-of-the-art energy storage solutions for the automotive and industrial market. Leading car, truck and lift truck manufacturers trust in Exide Technologies as an original equipment supplier. Exide also serves the aftermarket through a portfolio of successful and well-known brands.

Exide Transportation manufactures batteries for light and commercial vehicles, as well as agricultural and marine leisure applications. Industrial markets – under the division **GNB Industrial Power** – include efficient energy storage solutions for motive power applications such as lift trucks, cleaning machines and other commercial electrical vehicles, and network power applications such as telecommunications systems, renewables, and uninterruptible power supply (UPS).

Exide's engineers have always been at the forefront of bringing important innovations to the industry. Exide's ISO/TS-certified manufacturing facilities ensure that customers receive products that are produced with maximum efficiency and fulfill the highest quality standards, while minimizing impact on the environment.

Exide's extensive sales and distribution network provides quality service and delivers on time to its customers. Its world-class recycling facilities ensure that batteries will be reused, helping to make a positive contribution to the environment. Exide also provides services, accessories and energy consulting to its clients.



- EMEA headquarters
- Manufacturing plants
- Recycling plants
- Distribution centers
- Main sales offices
- R&D centres

Manufacturing plants ISO 9001 and ISO 14001 certified

Automotive plants IATF 16949 approved

EMEA HEADQUARTERS

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