



Liberator® Low Maintenance and
Tubular-HP® High Performance Motive Power
Industrial Batteries and Chargers for
Lift Truck Classes I, II and III



Liberator Low Maintenance Batteries

Superior Design Delivers Daily Savings

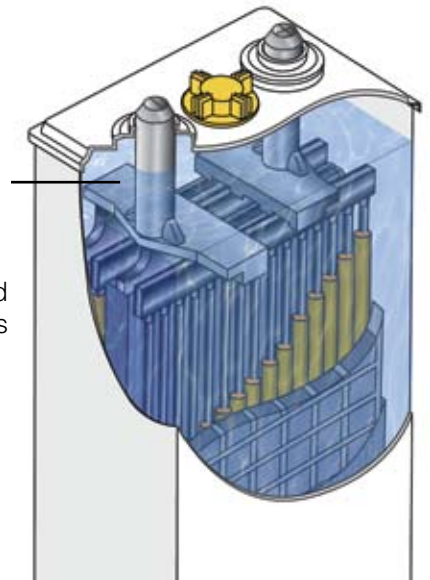
Liberator Batteries Are:

- Designed to deliver consistent, reliable power using round tubular positive plate technology
- Designed to achieve 1800 cycles when operated to 80% Depth of Discharge (DOD)
- Designed with a low antimony positive grid to minimize gassing during charging
- Able to achieve a 45-day or 90-day watering interval (depending on the type of SCR charger used)
- Available in three different model options to meet a variety of customer requirements from low cost to minimum maintenance
- Available in 85, 100, and 125 Ahr positive plate sizes that result in battery heights of 22.63", 25.63", and 30.5", respectively

Liberator batteries give you the freedom to choose the best level of power, performance, and reduced maintenance for your medium to heavy duty lift truck applications.

Designed to Achieve a 45-day or 90-day Watering Interval*

A new plate design provides over 70% more electrolyte headspace. This increased headspace, combined with low antimony positive grids and an optimized charging profile, reduces water loss during charging and translates into more days of run time before water addition (versus typical flooded flat plate battery designs).



* Based on 1 cycle per day (80% discharge) and 5 days per week operation

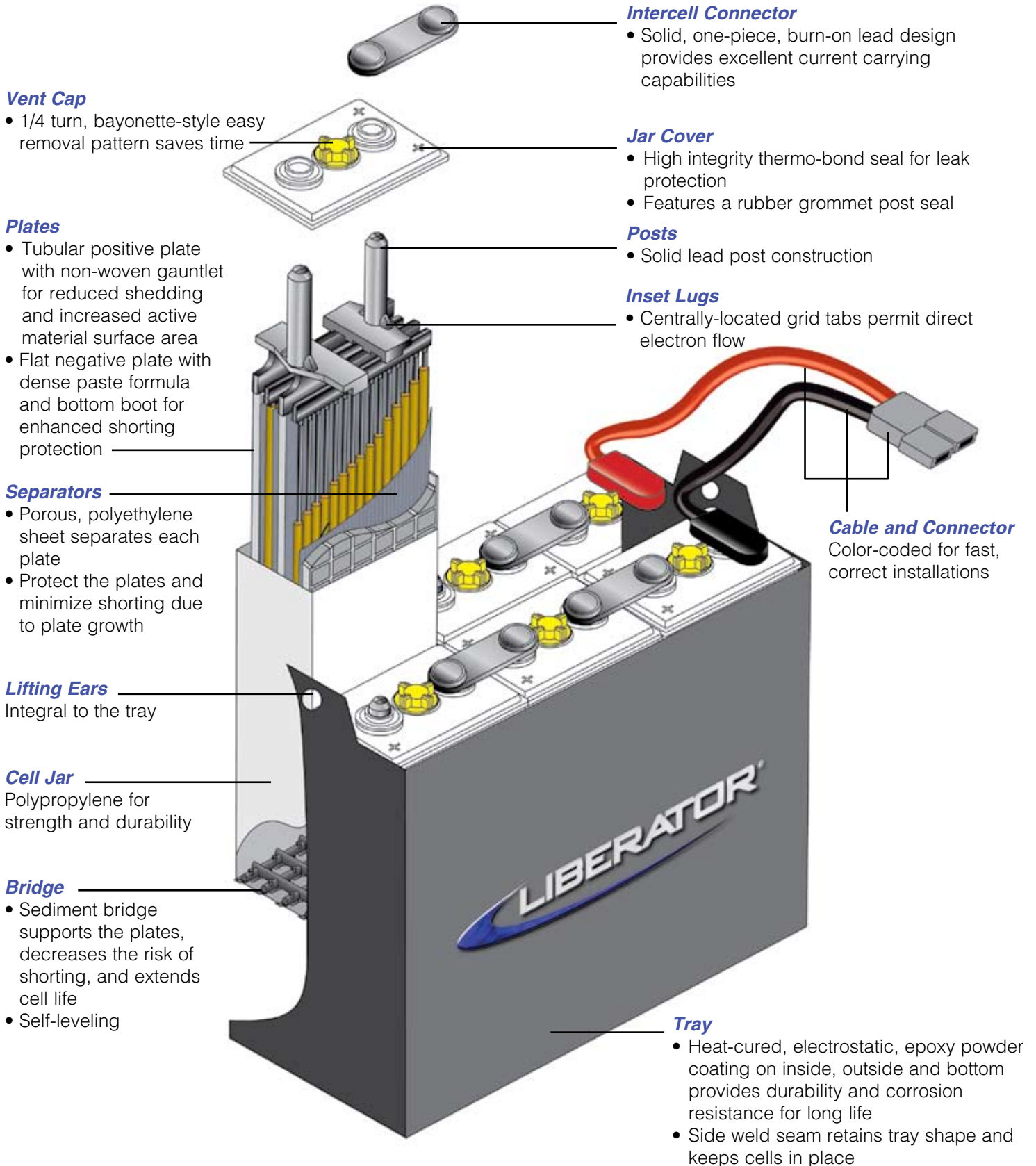
Multiple Options To Suit Your Need

- **Standard** – lowest cost for locations with dedicated battery managers, 45-day watering interval with the use of any SCR charger with an I-E-I profile or 90-day watering interval with the use of an Exide SCR200 charger with the advanced I-W-P charging profile
- **Gold** – Standard Option plus an electrolyte level sensor and a single point watering kit suitable for most water supply pressures; greatly reduces battery watering time
- **Platinum** – Gold Option plus a maintenance package that includes watering*, an annual battery inspection, cleaning, and routine maintenance adjustments. A cost effective option for locations that don't want to worry about battery maintenance

*Number of waterings depends upon charger type and battery usage.



Advanced Tubular Cell Design...



...Means Longer Run Time.



Tubular-HP High Performance Batteries

Superior Design Delivers More Power For a Quicker Lift and Longer Life



- Available in 100 and 140 Ahr positive plate sizes that result in battery heights of 22.63" (typical 85 Ahr jar size) and 30.5" (typical 125 Ahr jar size), respectively
- The worlds' most widely used flooded lead-acid battery design
- Designed to deliver more consistent, reliable power than equivalent volume flat-plate batteries by using the same round tubular positive plate technology as the Liberator
- Designed to achieve 1800 cycles when operated to 80% Depth of Discharge (DOD)
- Your lowest cost tubular design option with watering recommended after each 5-10 cycles (depending on the lift truck application and duty)
- Best when charged with an Exide FLX200 or SCR200 SCR-type charger
- Warranty - Five years full, one year prorated

There's A Tubular-HP Battery For Virtually Every Lift Truck Application.

Exide SCR Chargers

The Benefits of Improved Technology

Superior Performance From 3 Models For A Proper Charge Every Time

FLX200 For Flooded Batteries Only

- Uses an I-E-I (constant current/constant voltage/constant current) charge profile
- Tightly controlled voltage during critical "gassing phase" to reduce heat generation and water loss, thereby extending battery life
- Auto-termination of charging after voltage stabilization using dV/dt or elapsed time
- di/dt termination protects against thermal runaway and battery damage
- Adjustable for cold storage applications
- Automatic profile adjustment prevents unnecessary charging
- Conversion kit upgrades the FLX200 to the SCR200



SCR200 For Flooded and VRLA Batteries

- Same features as the FLX200, with the addition of advanced profiles for charging Champion® VRLA and Liberator batteries



Element HF For Flooded and VRLA Batteries

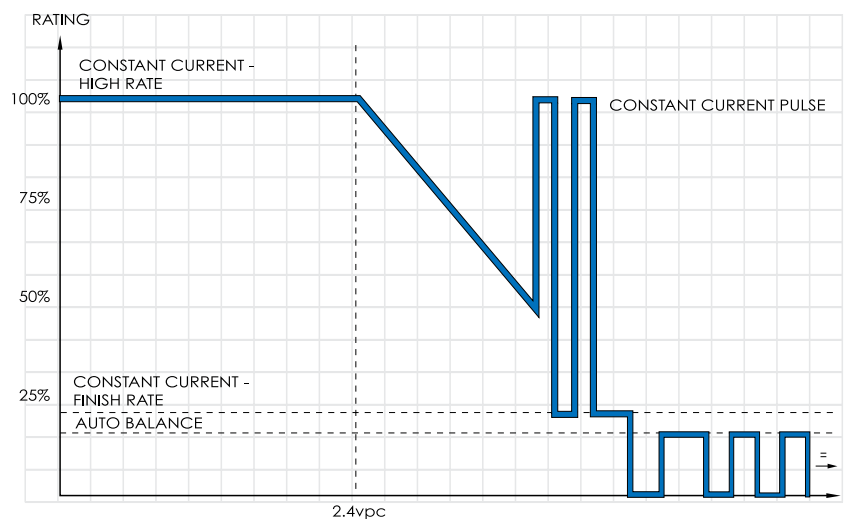
- High efficiency soft switching power conversion technology
- Multi voltage capability
- Advanced intelligence and controls
- Advanced user interface with remote control capability



Exide SCR200 Chargers with I-W-P Profile Maximize Your Liberator Investment

SCR200 Superior Performance

- An advanced charge profile used for the Liberator Gold and Platinum series batteries applies two pulses of constant current to the battery during the constant power phase, which circulates the electrolyte within the cell to minimize stratification without excessive gassing
- The Liberator advanced I-W-P profile optimizes amp-hour return, creating a highly efficient recharge



Silicon controlled rectifier (SCR) charging is the right choice for all your VRLA, Tubular-HP and Liberator battery needs.

Exide Technologies - The Industry Leader.



Element

TITAN

GNB
Flooded
Classic

 **EXIDE FUSION**

LIBERATOR

TUBULAR-HP
HIGH PERFORMANCE

 **Sonnenschein**

Exide Technologies Industrial Energy, a division of Exide Technologies, is a global leader in motive power battery and charger systems for electric lift trucks and other material handling equipment. With a strong manufacturing base in both North America and Europe and a truly global reach (operations in more than 80 countries) in sales and service, Exide Technologies Industrial Energy is best positioned to satisfy your power needs locally as well as all over the world.

Based on over 100 years of technological innovation, the Motive Power Division leads the industry with the most recognized global

brands, such as GNB® FLOODED CLASSIC, TITAN®, TUBULAR-HP®, ELEMENT®, LIBERATOR®, EXIDE FUSION™ and SONNENSCHN®. They have come to symbolize quality, reliability, performance and excellence in all the markets served.

Exide Technologies takes pride in its commitment to a better environment. Its Total Battery Management program, an integrated approach to manufacturing, distributing and recycling of lead acid batteries, has been developed to help ensure a safe and responsible life cycle for all of its products.

Note: Design and/or specifications are subject to change without notice. If questions arise, contact your local sales representative for clarification.

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